

**SPIRITUAL ECOLOGICAL CONSCIOUSNESS TOWARDS  
ECOLOGICAL CONVERSION:  
EXPERIENTIAL STORIES OF SENIOR SECONDARY STUDENTS  
AND AN AUTOETHNOGRAPHY OF THE RESEARCHER.**

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## **STATEMENT OF SOURCES**

This thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma.

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

All research procedures reported in the thesis received the approval of the relevant Ethics Committee.

Signature.....

Date.....

## ABSTRACT

Pope John Paul II called the Catholic people of the world to an ecological conversion in response to scientific information that the Earth is experiencing a global environmental crisis. To help people to come to an ecological conversion he asked teachers to develop concrete programs and initiatives in order to sensitize young people to the needs of the Earth. This thesis explores one educational pathway to ecological conversion.

The thesis begins by presenting the environmental crisis as a spiritual and moral crisis of alienation from the natural world which has allowed us to dominate and despoil the Earth. From the literature on the subject, and from my personal and professional experience as a teacher, a schema was developed which provided a process for ecological conversion. An autoethnography of my personal and professional experience of spiritual ecological consciousness towards ecological conversion is presented as lived experience of the phenomenon.

The next step was to design a curriculum to teach for ecological conversion and so a topic titled Creation Theology evolved out of the literature and the schema. The students of this class subsequently provided participants for interviews for research data gathering. The experience of this class inspired an extended learning experience in a unit of study titled Earth Spirituality. Again the students were invited to share their experiences of learning about spiritual ecological consciousness towards ecological conversion. I wanted to know what the experience of learning about creation theology and earth spirituality from religious and scientific perspectives was like for my students. This involved telling the great story of the universe which initiated an understanding of connectedness, interdependence and interrelatedness with the natural world. It also introduced the notion of the Earth as spiritual and sacred to God.

The thesis explores:

- one pathway presented as an innovative curriculum for teaching senior secondary students at Catholic Secondary College for renewal and restoration of God's Earth,
- a schema developed as a process for undergoing an ecological conversion,
- an innovative pedagogy for teaching for ecological conversion,
- the experience of students who participated in classes with addressed spiritual ecological consciousness towards ecological conversion and
- an autoethnography of my lived experience of ecological conversion.

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# **CHAPTER ONE**

## **THE STORY BEGINS**

### **Introduction**

In 1990, Pope John Paul II issued his World Day of Peace Message, Peace with God the Creator – Peace with all Creation. The Holy Father announced:

There is a growing awareness that world peace is threatened not only by the arms race, regional conflicts, and continued injustice among peoples and nations, but also by a lack of due respect for nature .... Moreover, a new ecological awareness is beginning to emerge which, rather than being downplayed, ought to be encouraged to develop into concrete programs and initiatives (p. 1).

This directive was expanded upon in Pope John Paul II's 'General Audience Address' on January 17, 2001: "It is necessary, therefore, to stimulate and sustain the 'ecological conversion', which over these last decades has made humanity more sensitive when facing the catastrophe toward which it was moving" (Pope John Paul II, 2001, p. 1).

### **Background to the Research**

The opening words of this thesis present an invitation to explore how one might respond to the global environmental crisis from a Catholic Christian perspective. Some scholars, for example, Berry (1988), Brown (2003), Collins (1995), Edwards (2001), Fox (1991) and Treston (2003), argue that the global environmental crisis is a consequence of a spiritual and moral crisis due to a lack of connectedness to, or alienation from, the other than human natural world. In response, Pope John Paul II called members of the Catholic religious tradition to an ecological conversion as a way forward in restoring the Earth and challenged

the Catholic community to develop concrete programs and initiatives to stimulate and sustain those who might answer the call to an ecological conversion. This thesis therefore, explores one way of responding to this invitation by developing an educative process that enabled students in Catholic Secondary College to become sensitive to the needs of the natural world in order to appreciate the nature of the environmental crisis and their involvement in the environmental crisis from a Catholic Christian perspective.

### **The Earth is experiencing a global environmental crisis**

There is a plethora of scientific research on the health of the Earth see for example, (The Garnaut Climate Change Review, 2008; Millennium Ecosystem Assessment, 2005; The United Nations Climate Change Conference, 2007; United Nations Conference on the Environment and Development, 1992; The Worldwatch Institute, 2007). The reality of the global environmental crisis, its causes and effects is now well documented. This has resulted in environmental activists and scientists, along with many leaders of World Religions, calling on humanity to weigh the cost of economic prosperity against environmental bankruptcy. As a nation's wealth increases, the environment suffers, as a nation's wealth comes at the cost of the planet's delicately balanced natural resources. When a nation's economy is an extracting economy, it is a terminal economy because the Earth's seeming abundance is, in fact, limited (Berry, 1999, 1988). Berry (1988) maintains that humans view the natural world as a deposit of wealth that can be exploited infinitum for profit and power. Similarly, Dobson (2006) argues that the exploitative mentality is far removed from viewing the Earth as a "part of every element of ourselves and that we must all begin to understand the finite nature of our land, our seas, and our rivers" (p. 6). Moreover, Pope John Paul II (1990) argued that the ecological crisis is due to "a callous disregard for the hidden, yet perceivable requirements of the order and harmony which govern nature itself" (p. 2). Such points of order and harmony require that humans view themselves within a different paradigm from one that assumes humanity is a separate and special species, and that other creatures are devoid of rights (Berry, 1988).

Research on the state of the planet leaves little doubt that a change in the way we perceive the Earth and its resources is urgent if we are to continue to enjoy life as we have experienced it. The sequence of events that have brought about global climate change was predicted in a seminal document written to the people of the world entitled *World Scientists' Warning to Humanity* (1992) signed by 1,500 prominent individuals. Their message encapsulated a sense of anxiety for the future:

Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about (p. 1).

Fifteen years later, the Worldwatch Institute's research documented in *Vital Signs 2006-2007* reported in 44 concise analyses that the predictions made by the world scientists in their warning to humanity are substantially realised. As we approach the end of the first decade of the 21st Century, time is of the essence to address the world's deepening environmental and social problems (Roszak, 1998, 1992). The Worldwatch Institute (2007) argues that of the 24 major ecosystems supporting life on Earth, 15 are at or nearing unsustainable levels for life on Earth. For some scholars, (Berry, 1988; Fox, 1991) one of the root causes for lack of integrity in caring for the Earth is due to human's loss of spiritual connectedness to the Earth.

### **Spiritual nature of the environmental crisis**

Fox (1991) and Pope John Paul II (1990) argue that the global environmental crisis is fundamentally a spiritual and moral crisis that has influenced the way humans view and treat the Earth. Rasmussen (1996) adds to the argument that the enormity of the environmental crisis should be seen and acknowledged from the beginning as having a spiritual as well as a

scientific dimension. Similarly, Gore (1992) argues, “the more deeply I search for the roots of the global environmental crisis, the more I am convinced that it is an outer manifestation of an inner crisis that is, for lack of a better word, spiritual” (p. 12), as does Hull (1993) when he observes that “until recently, the spiritual dimension of the ecological crisis has been largely ignored” (p. 7). It is not that humans have sought to cause the demise of the Earth deliberately, but rather, it is the result of a deep spiritual malaise brought about by ignorance of the need to remain connected to the source and wellspring of life, the Earth. For Leunig (1995), this deep spiritual malaise that humans are experiencing is expressed thus:

We are in the midst of pillaging and rape of the psychological ecosystem, the ecology of the soul. There is a great, delicate, interconnected ecology that goes on in people’s lives. We’re defiling it, plundering it, exploiting it, and this will have tremendous consequences for the emotional health of society (p. 20).

Gore (1993) sees the problem as a consequence of a traumatised 20th Century characterised by striving for meaning and purpose amongst the two World Wars, holocausts, nuclear threats, and global disease, which collectively have deeply affected the human psyche. The recent retreat into the seductive influence of consumption and technology has left people even more distant from the natural world, resulting in disharmony, confusion and lack of balance for body and spirit. The spiritual and moral crisis is manifested in our denial of the Earth’s God given rights and our spiritual alienation, which precludes any sense of organic connection to nature (Berry, 1988; Collins, 1995; McDonagh, 2006).

In this thesis, the focus is on the spiritual and moral crisis from a Judeo-Christian perspective and in particular the Catholic tradition. Whilst other forms of Earth spirituality are affirmed for their contribution to understanding and caring for creation, it is the Catholic Christian ethos that is explored in this research which acknowledges the Judeo-Christian God as the foundational principle and as creator of the universe. This thesis is focused on the restoration and renewal of the Earth because it firstly belongs to God rather than concern for environmental sustainability for human survival which can be examined within economic, political or social domains. Earth spirituality, within the Judeo-Christian tradition, has the



potential for many to address the spiritual malaise brought about through alienation from the natural world.

### **Catholic call to an ecological conversion**

In response to the global environmental crisis, and acknowledging it as a spiritual and moral crisis, Pope John Paul II (2001) called the Catholic people of the world to an 'ecological conversion'. He articulated the need for an ecological conversion, a re-awakening of our appreciation of planet Earth as our home and provider of all our needs. McDonagh (2004) argues that since humans have exploited the Earth's resources, they must also reflect on the false belief that the Earth has an endless supply of natural resources. Moreover, Pope John Paul II (1991) noted the important role education can play in ecological responsibility and that young people especially must be sensitised to the needs of the Earth:

Symptomatic of our time is the fact that in face of what has been called the danger of an environmental holocaust, a great cultural movement has been started to protect and rediscover the natural environment. Young people especially must be sensitised to this need (p. 3).

Pope John Paul II mandated that young people especially take up an ecological vocation as a matter of urgency and as a matter of faith. Pope John Paul II (1990) argues that education is required for Catholic youth so they are prepared spiritually and morally to be proactive in stemming the tide of the global environmental crisis:

An education in ecological responsibility is urgent: responsibility for oneself, for others, and for the Earth. This education cannot be rooted in mere sentiment or empty wishes. Instead a true education in responsibility entails a genuine conversion in ways of thought and behaviour (p. 1).

Education, therefore, is considered pivotal in addressing the need for ecological conversion, as much of the damage to the Earth has been through ignorance and greed, for example, not realising the consequences of mining, deforestation, participation in a global economy or pursuing globalisation (Collins, 1995). One way of educating youth as Berry (1988) suggests is through telling the great story of the universe, at the same time understanding the students' real world because they bring to the task different levels of insight, involvement and commitment to the natural world, that is, their story.

### **Aim of the Research**

The aim of this research is to respond to Pope John Paul II's call to educators to develop practical educative programs for ecological conversion especially for youth. This aim is supported by a self-reflexive activity on the part of the teacher/researcher as I recall my own ecological conversion by exploring the experiences that influenced my journey. This thesis therefore aims to explore an innovative way that students might be educated to recognise and embrace a sense of spiritual ecological consciousness in order to experience an ecological conversion. This is important, because as Pope John Paul II (1991) argues, it is necessary for the students own sense of well-being, the well-being of the Earth and as a means of addressing the environmental sustainability issues affecting all life. It also aims to explore the experience of engaging in the process of coming to understand and embrace a sense of spirituality and sacredness of the Earth through the development of spiritual ecological consciousness as the ultimate and intimate spiritual connectedness to the natural world in order to illuminate its significance in coming to an ecological conversion. Hence, the research examines whether it can be acquired or reclaimed through education, and if so, what it is like for senior secondary students to experience it. My lived experience of spiritual ecological consciousness towards ecological conversion is presented in Chapter Five and my lived experience of earlier teaching for environmental sustainability is examined in Chapter Three as part of the context in which this research was conducted.

Underpinning this study is the belief that students when given appropriate education regarding the call to an ecological conversion, may develop or enhance their spiritual ecological consciousness through appreciating their connectedness to the natural world because, within the Catholic tradition, the natural world is all part of God's creation. It is anticipated that this research will help address the gap in the literature regarding youths' spiritual sense of connectedness to the Earth. Further, it will inform our understanding of ways to assist young people to grow in spiritual ecological consciousness towards ecological conversion as a means of generating harmony and balance with the natural world for spiritual health, the restoration of the health of the planet itself and ultimately environmental sustainability.

### **Evolution of the Research Questions**

The inspiration for this research partially came from reflecting on my own pathway and progress towards ecological conversion. Moreover, having become aware of the enormity of the environmental crisis, I wanted to do something within my role as an educator of the young to address this crisis. A review of the literature relating to the environmental crisis indicated a lack of research into how young people were experiencing the feeling that all is not well with the Earth and their concerns about what the future might hold for them. The literature also suggested that youth are not, in general, responsive to the need to be proactive in stemming the tide of climate change which was of concern to me. McDonagh, (2005) and Swimme, (1992) argue that, in a very real sense, it is our youth who are the victims of the environmental crisis as they have arguably inherited a depleted Earth, an Earth that needs renewing. It also became apparent to me that there was a scarcity of research relating to youth's appreciation of the Earth, especially their sense of spiritual connectedness to the Earth (Berry, 1988, Edwards, 2006).

## **The research questions**

This thesis explores the experience of teaching senior secondary students about spiritual ecological consciousness towards ecological conversion according to Van Manen's (1998) approach of explicating the lived experience of a phenomenon. It involves students in Catholic Secondary College (a pseudonym for the college in which I conducted my teaching and research), who, when given appropriate education on environmental consciousness and spiritual ecological consciousness for ecological conversion, were asked to share their experiences of the class and their learning. The research also includes my lived experience as in the process of this thesis, I explored my own journey of spiritual ecological consciousness towards ecological conversion. A personal exploration of my journey of coming to ecological conversion, on reflection, provided a 'lived experience' for the development of the curriculum content and sequential learning from environmental awareness to ecological conversion as set out in a schema presented on page 17 . Moreover, the autoethnography presented in Chapter 5 also offered an insight into how to interpret the students' experiences as described in the data Chapters Six and Seven. Therefore, this research investigates the following questions:

- What is the lived experience of spiritual ecological consciousness towards ecological conversion of the researcher/teacher in my life's journey?
- What is the experience of students who have participated in studies that focused on spiritual ecological consciousness towards ecological conversion?

The research questions are explored and responded to by firstly reviewing my lived experience of spiritual ecological consciousness towards ecological conversion from a personal perspective. Secondly, from a professional perspective which includes teaching and learning for ecological conversion as experienced by students in two different classes, of two different age groups, over different periods of time and two curriculums. At the same time, in the light of Pope John Paul II's call to educate youth for an ecological conversion, it seemed

appropriate and important to understand the students' experience in order to ascertain the effectiveness of a pedagogical pathway for spiritual ecological consciousness towards ecological conversion. In brief, I wanted to know what the experience was like from a hermeneutical/phenomenological interpretative perspective for students to move through a process for ecological conversion? Hence, the research data is about exploring and appreciating the 'experience' of the journey for each student rather than the 'arrival' at a certain stage of the process.

In order to explicate further meaning from the interviews with the students, three sub-questions arose that provide a framework for interpretation of the research data.

- a) From a conceptual understanding, how did the experience of teaching and learning engage the students in contemplating their interconnectedness with the natural world?
- b) From an affective understanding, how did the experience of teaching and learning engage the students in order to understand that the Earth is sacred to God and that we should love Earth, our home.
- c) From a spiritual understanding, how did the experience of teaching and learning engage the students so that they could develop their sense of spiritual ecological consciousness towards ecological conversion?

The three sub-questions are addressed in the literature which helped to inform this study and in the data Chapters Five, Six and Seven. They are also revisited in Chapter Eight when the findings from the research are brought together for meaning making of the experience of spiritual ecological consciousness towards ecological conversion. Figure 1:1 presents the background for the research and illustrates the sequence in which this thesis took shape.

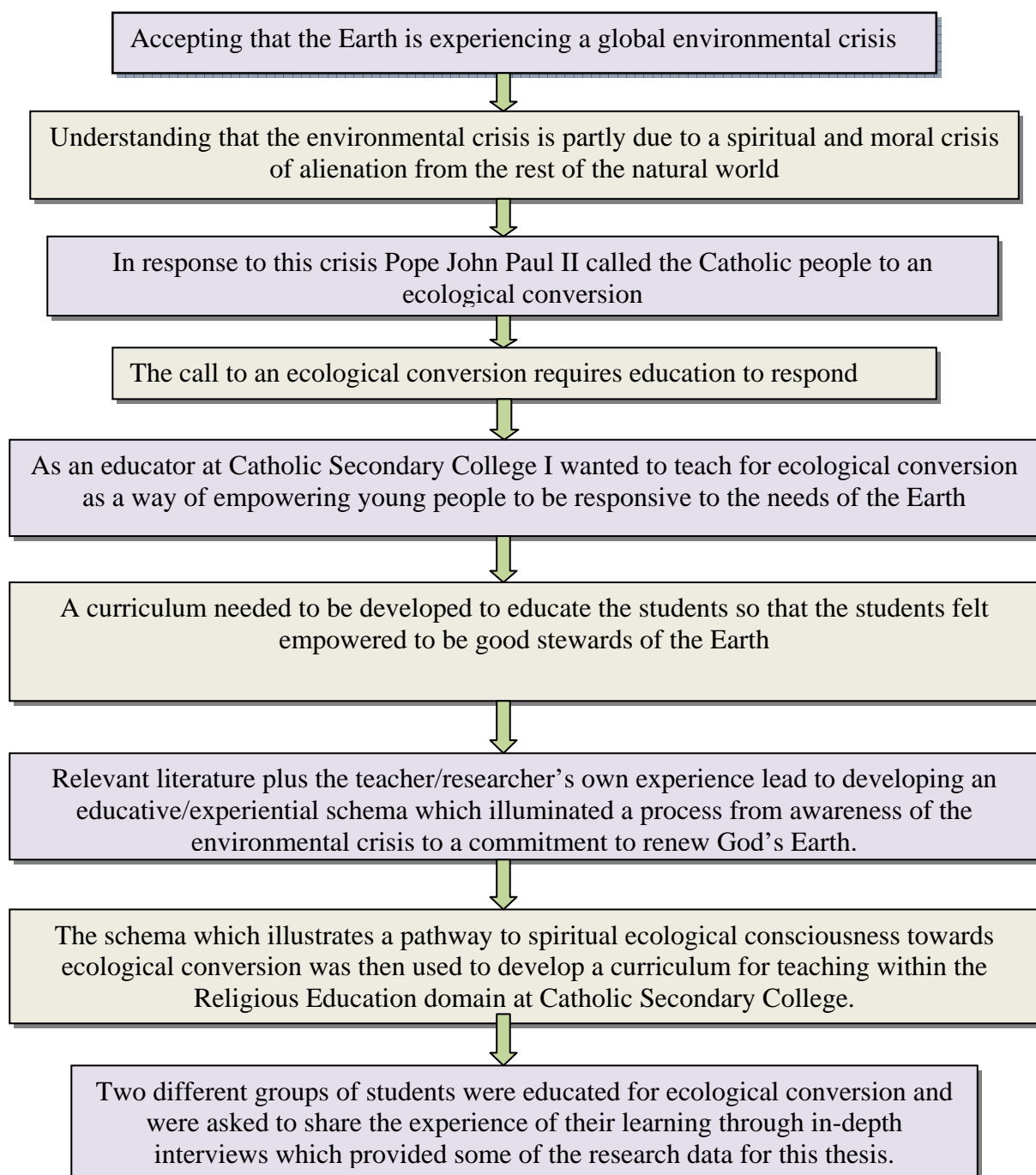


Figure 1.1 *Flowchart Illustrating the Sequence in which the Background for the Thesis took Shape.*

## Definition of Terms and Key Concepts

The terms environmental awareness, ecological anxiety, ecological consciousness, Earth spirituality, creation theology, spiritual ecological consciousness, ecological conversion and environmental sustainability, some of which I have already used, are recurring throughout this thesis. They encapsulate key concepts that are significant for understanding much of the thesis. These key concepts evolved as the thesis took shape and are expounded upon in the review of the literature, the research chapters and in the findings from the research. At first glance, there appears to be an overlap in the descriptions of the terms. However, they each add an incremental understanding to the overall study of spiritual ecological consciousness towards ecological conversion. It is therefore appropriate, before we get much further; to explain the meaning I give to each of these terms as used throughout this study.

- a) *Environmental Awareness* is a basic understanding of the importance of the natural world and that air, water, soil and vegetation are necessary for all life on Earth. At this elementary level, life goes on without too much thought about sustainability issues, that is, business as usual. It is a rather superficial appreciation of environmental issues, that is, how they affect ‘self’ rather than of global community concern.
- b) *Ecological anxiety* has been anticipated by some scholars, especially psychologists who have explored the connection between a healthy Earth and a healthy mind (Roszak, 1992; 1998; Roszak, Gomes & Kanner, 1995). Eco-anxiety manifests itself through reflection on the current state of the environment and contemplating what the future may look like if the environmental crisis worsens. It can be imbued with a state of denial, fear for the future, sense of alienation from the natural world, a lack of spirituality of the Earth or a sense of futility in the personal efforts made to alleviate the crisis (Roszak, 1992).
- c) *Ecological consciousness* involves a sense of the interdependence and interconnectedness of all species on the Earth, with an appreciation of the multitude of ecosystems that support all life on the planet. It is the knowledge that

every action has a reaction that can upset the ecological balance for the health of the natural world. Ecological consciousness is expressed as a deep empathy with the demise of the planet and accepts that the environmental crisis is a consequence of ignorance and insensitivity on the part of human beings (Berry, 1988; Uhl, 2000).

d) *Earth spirituality* requires a personal view in the context of relationship with, and relatedness to, the natural world. It is an experiential perspective of the Earth that views the Earth and the universe as sacred. It acknowledges a sense of awe and wonder of the beauty, complexity, diversity, spirituality and fragility of the Earth as well as pondering on the profound enormity of the universe. It includes “searching for meaning in a universe imbued with mystery” (Uhl, 2004, p. xix-xx). Echlin (2004) expresses Earth spirituality as “the art of loving God, present in the Earth” (p. 130). A term sometimes used as synonymous with Earth spirituality is eco-spirituality. The Ecospirituality Foundation (2008) argues that eco-spirituality can be viewed within the context of the Earth and the fabric of the cosmos. It is a global spirituality. It is not restricted to religious traditions but transcends all boundaries of spirituality and science. It is experiential in so far as it is imbued with a sense of connectedness to the mystery of the universe. It encapsulates a sense of the spiritual in every being and everyday activities. Although it has a universal application as an expression of the cosmos, it also has a history for adherents of the Catholic tradition (Habel, 2001) which is the orientation taken in this thesis.

e) *Creation Theology* is largely a new way of understanding our place in the universe and in particular the cosmic story of human existence. This new ecology/cosmology theology begins with the story of the Universe from its beginning approximately 15 billion years ago, through the evolution of the Earth, to human life as we exist today. It presents Jesus as the Cosmic Christ who suffered and died for all creation and God as omnipotent creator and therefore primary owner of the Earth. Creation theology is foundational to coming to ecological conversion and ultimately an ecological vocation to be a good steward of the Earth as a matter of faith and urgency.



- f) *Spiritual ecological consciousness* encompasses ecological consciousness, Earth spirituality and creation theology. It is the conscious and unconscious acceptance that each person is spiritual and is most at home when experiencing connectedness to the Earth and God who gives life to and nurtures all creation. Spiritual ecological consciousness requires an ‘awakening’ of our capacity to connect spiritually with the cosmos, the Earth and every creature. Roszak (1998) suggests that listening to the voice of the Earth deep within our being, spiritually, aesthetically and biologically, that we “will gracefully move to do what is ecologically right and balanced” (p. 16). The term spiritual ecological consciousness was coined for this research in order to encapsulate creation theology (Bradley, 1992; Edwards, 2001; Fox, 1991), and Earth spirituality (Simkins, 1994) within the Judeo-Christian tradition and distinguish it from pantheism embodied in deep ecology (Devall & Sessions, 1985; Merchant, 1992) and a myriad of other forms of Earth spirituality (Hallman, 1995) which may not acknowledge a creator God.
- g) *Ecological conversion* occurs when one engages in a paradigm shift from a use and abuse mentality of the Earth’s finite resources to satisfy one’s own needs to a sense of the Earth as a community of beings with needs, interconnected, interrelated and interdependent in ecosystems for the survival of all species. It can be achieved through re-discovering and re-claiming a sense of the Earth as sacred, as spiritual, as sacrament, and movement towards a state of spiritual ecological consciousness (Berry, 1988; Catholic Earthcare Australia, 2002; Pope John Paul II, 2001). Hence, ecological conversion is a process as Collins (1995) suggests we must pass through a real conversion process to come to existential consciousness of our relationship to the world. “It is only when we pass through this process that we realise that spirituality and ecology are not mutually exclusive but actually belong together” (p. 174). It is possible for all people regardless of religious persuasions or other beliefs to come to ecological conversion. However, the emphasis of this thesis is on the motivation that comes from a belief in a creator God and all creation as a revelation of God.
- h) *Environmental sustainability* is taken to mean the ability of the planet to sustain the biodiversity of life in perpetuity. Environmental sustainability, therefore,

encompasses both the health and well-being of the planet itself, for itself, as well as all dependent life (Merchant, 1992). In the context of this research, sustainability means being able to meet the needs of the present world community without compromising the needs of future generations (World Commission on Environment and Development, 1987). Put simply, the Australian National Strategy for Environmental Sustainable Development (1992) requires “using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained and quality of life for both present and future generations are increased” (p. 8).

### **Overview of Different Pathways to Environmental Sustainability**

There are many people in all walks of life who in their own way are addressing issues of environmental sustainability. There are as many pathways as there are people seeking environmental sustainability. For the purpose of this research, it is recognised that there are a number of different pathways to environmental sustainability. I have drawn on three possible pathways to illustrate some of the variations in motivation to sustain and nurture the Earth. Below is a simplistic illustration of possible different pathways to environmental sustainability, however, the pathways are not intended to suggest, for example, that a politician could not be a spiritual person and/or an environmentalist. It is accepted that there would be crossovers due to personal and professional influence or commitment.

In general terms, Pathway One has captured the attention of those who are generally well informed regarding the import of climate change including such people as scientists, economists and politicians and many strategic plans have been implemented to address environmental issues such as air pollution, soil degradation, ozone depletion, global warming, deforestation and loss of bio-diversity. The media has largely focused on this pathway because of its impact on the economy. The Stern Report Review (2006) examined the effects of climate change on the economic future of the United Kingdom, and of more recent times

'The Garnaut Climate Change Review' (2008) commissioned by the Australian Federal Government are examples of environmental responsibility for environmental sustainability. Pathway One, in general, is principally concerned with sustaining the integrity of ecosystems for the purpose of long-term sustainability for the economy, and is therefore, deemed inadequate as a pathway to sustaining biodiversity, especially the overall health of the Planet.

Pathway Two could include farmers. Their personal livelihoods and food production for the community are dependent on sound management of their farms. Their environmental concerns can include addressing salinity, economical use of irrigation, re-planting stands of trees, responsible use of chemicals, direct seeding or planting native grasses. There are also people in underdeveloped countries, for example, whose communities are totally dependent on rainforests for food, clothing, shelter, heating and medicine. They are environmentally conscious in so far as they understand and respect the balance of nature and only take from the fruits of the forest that which is required for survival. Environmentalists are people who are concerned about the welfare of the totality of biodiversity for itself in perpetuity. They are proactive in making the necessary changes to their own lives. The more extreme are prepared to take political action as required to defend such ecosystems as rainforests.

In comparison, Pathway Three suggests a different approach that is not so much about consumerist habits or sustainability for survival but rather an alternative mindset. It requires viewing one's place on the Earth, one that appreciates the Earth and its natural life as a community of subjects to be respected, protected and nurtured with a real sense of gratitude (Berry, 1988). It is this pathway to sustainability that has inspired the imagination, creativity and commitment of ecologists, theologians and leaders of World Religions who believe that the ecological crisis is primarily a spiritual, moral and ethical crisis with enormous consequences for the health of humans as well as all other planetary life (Collins, 1995; The Climate Institute, 2006). It understands the connection between self-needs and the future of all life on Earth, and therefore, is sensitive to the diverse ecosystems of the planet. It is this pathway that leads to spiritual ecological consciousness towards ecological conversion, which is the subject of this research. Important to note is that the three pathways mentioned

are not intended to be mutually exclusive of each other. While the different initiatives have validity as pathways to address the global environmental crisis, it is the pathway for restoration of God’s Earth through spiritually reconnecting with the Earth that is explored in this research. Figure 1.2 illustrates three examples of general pathways to environmental sustainability.

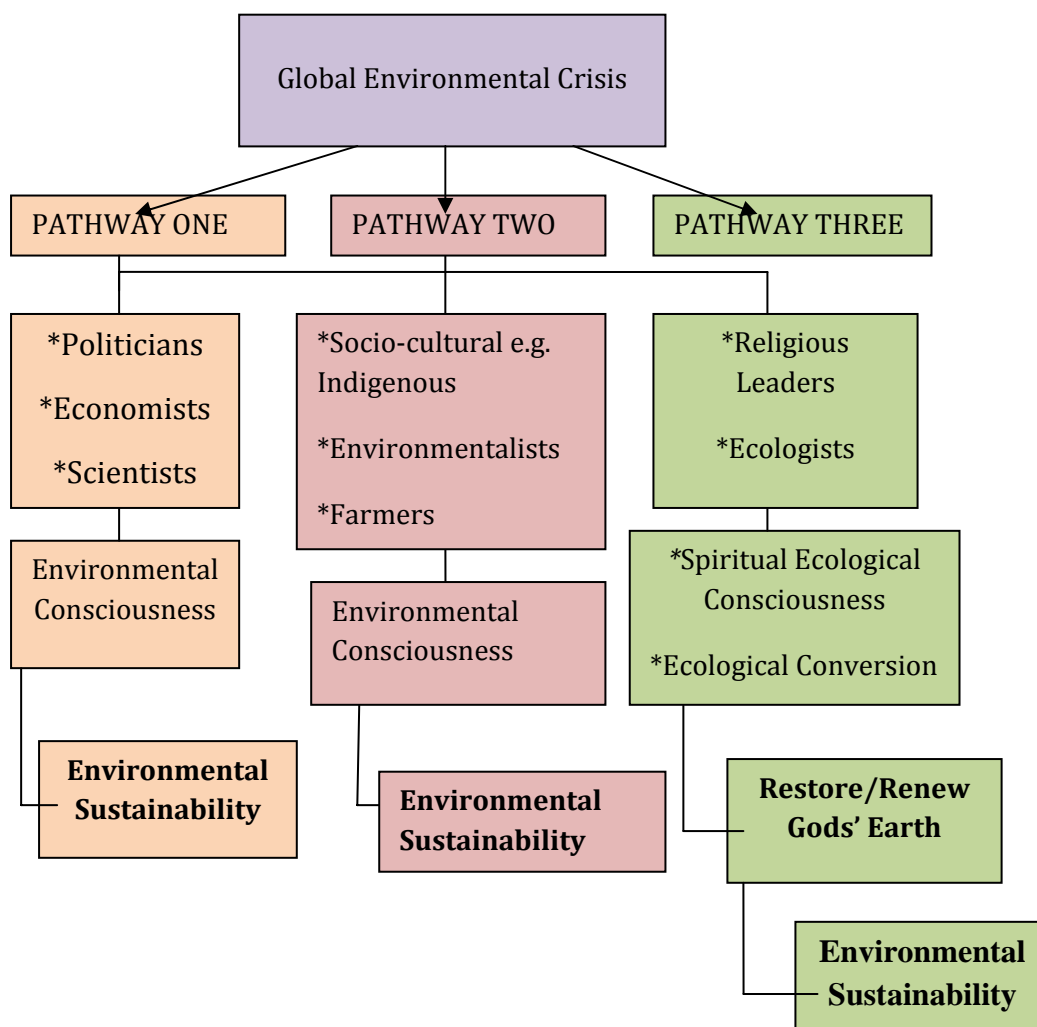


Figure 1.2: *Three Examples of General Pathways to Environmental Sustainability*

### **Designing a process for undergoing an ecological conversion**

After Pope John Paul II (1991), as head of the Catholic tradition, initiated a call to an ecological conversion, the question arose as to how one might move from appreciating that

there is a global environmental crisis to an ecological conversion which requires a personal response. After reviewing the literature surrounding the call to an ecological conversion, it became apparent to me that there are not only different pathways but there are a number of levels of understanding, involvement and commitment in addressing the healing, renewal and restoration of the Earth. Collins (1995) refers to ecological conversion as a ‘process’ of coming to an existential consciousness of relationship with the natural world through ecology and spirituality. Discernment of the literature affirmed a need for a process beginning with the understanding that ecological conversion does not begin in a vacuum. I then developed a process that took cognisance of relevant literature on creation theology/ earth spirituality and the need for environmental sustainability. Added to this was the lived experience, both personal and professional of the researcher/educator, when combined, was developed into a schema providing a resource for curriculum development for ecological conversion as illustrated in Figure 1:3.

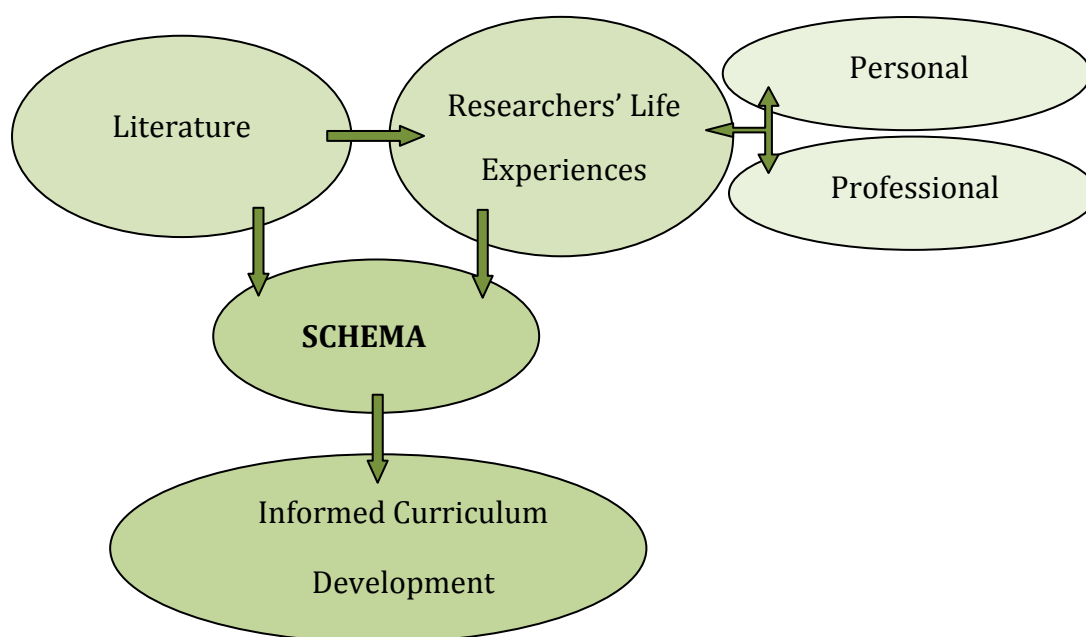


Figure 1:3 *Design of a Process for Curriculum Development for Ecological Conversion*

For the purposes of teaching and learning for spiritual ecological consciousness towards ecological conversion and interpreting the research data, it became paramount for me

to understand that people enter the process of ecological conversion from various levels of knowledge and experience. It is appropriate here to note that after reviewing the literature and examining my own experience of learning and teaching, I became aware that there is an ascending order, a dynamic process, for embracing ecological conversion. Although the ascending order may appear to be artificial, in so far as the movements overlap, as a schema it proved useful by aiding conceptual understanding. Clearly the schema developed through different stages of the thesis. In the first instance, it was inspired by reading and reviewing the literature. Secondly, the process was evident in my self-reflexive activity that analysed my own experience of coming to an ecological conversion. Thirdly, the literature plus my personal and professional experience informed the curriculum for teaching for ecological conversion. The ascending schema presented in Figure 1:4 subsequently provided a framework for the interpretation of the research data. It is proposed as an outcome within Pathway Three illustrated in Figure 1.2 and elaborated on in Figure 1:3 to inform a curriculum for environmental sustainability and more importantly, the renewal of God’s Earth.

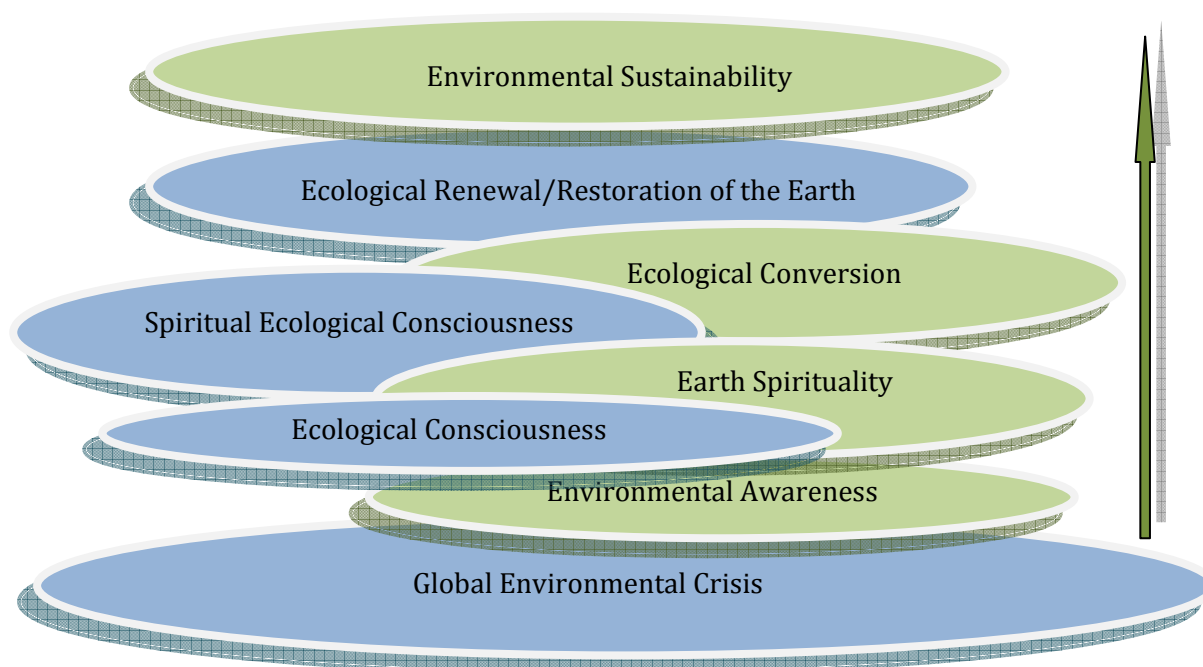


Figure 1:4 *Ascending Schema for Embracing Ecological Conversion*

The ascending schema begins with acknowledging that we are facing the crisis of the 21st Century, a global environmental crisis that is having, and will continue to have, severe repercussions for life on Earth (Berry, 1988; Fox, 1991; McDonagh, 2006). This acceptance is foundational to the thesis. As noted earlier, environmental awareness is the initial level of knowing one's environs, that is, of responding to the local sustainability issues, such as recycling waste and water restrictions. The next level of understanding can develop through an awakening of conscience in the way human beings relate to the other than human world, which is termed ecological consciousness (Brown, 2004). This can be experiential or through an educational process which is the focus for this research. Ecological consciousness can be enriched by learning about Earth spirituality, the traditional knowledge and experience of the Earth as sacred and a deeper level of appreciation for the Earth as source of life and provider for every creature. Earth spirituality has a real sense of relatedness and connectedness with the natural world supported by eco-spirituality, which places the human within the story of the cosmos.

For the purpose of this thesis, spiritual ecological consciousness is discerned as a level of commitment that is imbued with a profound reverence for the Earth as belonging to God and as a revelation of God (Collins, 1995; Edwards, 2001). Spiritual ecological consciousness encompasses the Judeo-Christian biblical teaching of God's intimacy with His creation especially evident in the ultimate, intimate and absolute involvement of God with the natural world expressed in the person of Jesus of Nazareth, as the Cosmic Christ (Collins, 1995; Edwards, 1991; Fox, 1988).

At its deepest level, the call of Pope John Paul II to an ecological conversion requires a commitment to live an ecological vocation in such a way as to make all life's decisions with ecological sustainability and the healing of the Earth in mind, not just for human beings, but also for all life on Earth and for the Earth itself. Brown (2004) argues that everyone is aware of the global environmental crisis at some level of consciousness, and after education, each person has a choice to commit to restoring the health of the Earth as a matter of conscience.

Ecological conversion can be imbued with a deep sense of faithfulness to stewardship of the Earth.

Although the artificial levels are intertwined, they broadly illustrate a pathway towards a commitment to ecological conversion that is presented as fundamental to resolving issues of sustainability and healing the Earth from a Catholic perspective (Pope John Paul II, 1990; Catholic Earthcare Australia, 2002). Other religious traditions, as well as non-religious people, may come to ecological consciousness and commitment to work for the health and well-being of the planet through their own individual pathways enlightened by their experience, tradition and teachings (The Climate Institute, 2006).

Although this schema is not found explicitly in the literature, it was developed from the literature and from the experience of teaching for spiritual ecological consciousness towards ecological conversion. For the purpose of this research, it is important to understand that the call to ecological conversion requires a conversion process (Collins, 1995). It could also be argued that an ecological conversion also requires an immersion process through education and/or experience of the various schema stages, albeit artificial, in order to recognise and acknowledge the need for a personal ecological conversion, a change of heart and lifestyle as well as a desire to live an ecological vocation. The place of ecological renewal/restoration in this schema draws on the basic principle that all creation belongs to God and has a right to a healthy existence. The process for ecological conversion as presented in the schema above was implemented in the classroom. This initiative provided the data for the research chapters which resulted from the experience of teaching and learning using the schema as a guide for the curriculum.



## Teaching for Ecological Conversion in Unchartered Waters

It was while reading the Australian Catholic Bishops' (2001) Justice Statement on Pope John Paul II's call to ecological conversion that I began to reflect on how this might be achieved, that is, how might students in Catholic Secondary College and ultimately to come to a deep spiritual connectedness to the Earth? As a Catholic woman called to ecological conversion, and as a teacher within the Catholic tradition challenged to teach for ecological conversion, I began with tentative steps to explore the possibilities.

In 2004, I taught the Victorian Certificate of Education, (VCE) *Philosophy: Unit 1* with a focus on Greek and Christian philosophers and their influences on Western culture. The VCE is awarded by the Victorian Curriculum and Assessment Authority (VCAA) to students who successfully complete four units in a subject area during their Year 11 and Year 12 of secondary schooling. *Philosophy: Unit 1* has three areas of study: epistemology, metaphysics and ethics. As part of the ethics curriculum, I decided to teach Earth ethics and focused on addressing the ethical issues relating to the use and abuse of the Earth's finite resources. From this perspective, I thought that it was important to inform the students about our moral obligation to walk lightly on the Earth. I soon became aware that I was not doing justice to Earth ethics, judging by what I perceived as the students' limited interest and general lack of willingness to engage in the discussions. I had much to reflect on; in particular, what might constitute best practice, in order to engage more productively with my students.

The following year, I taught *Religion & Society Unit 2: Ethics* and re-attempted studies in Earth ethics. I was conscious of making the topic less intrusive but the students displayed a similar unwillingness to engage with environmental issues directly influencing the ecological crisis. Whilst reflecting on my teaching philosophy and pedagogy, I realised that I was caught in a dichotomy of Earth ethical values. It dawned on me that in VCE, the general message from home, school and the community was to study hard and secure a good

job, or to study hard to earn a good Tertiary Entrance Ranking (TER) score for access to university. This would enable students to secure well paying employment so that they could achieve the very best financial position to provide for all their wants and needs. The invitation to walk lightly on the Earth posed a very different challenge from the message of their twelve years of schooling. I also became aware that studying environmental issues potentially had a degree of hopelessness inadvertently built into the complexity of the issues. I realised that students can feel powerless to stem the tide of the environmental crisis, and therefore possibly either consciously or unconsciously, reject the call to ecological conversion.

My reading of the literature as well as my personal experience in teaching for understanding the environmental crisis began to offer an alternative pathway. Quite simply, if we change the way we perceive our place on the Earth, then we will change the way we treat the Earth. That is, if we learn to love the Earth through appreciation of the sacredness of the Earth then we will care for that which we love (Tacey, 2004). This conviction, combined with the knowledge that the ecological crisis is considered by some religious leaders to be more a spiritual and moral crisis, provided the impetus to change the way I was teaching for ecological conversion.

In 2006, I taught *Text & Traditions Units 1 & 2* to Year 10 students. As part of this course, I introduced a topic on *Creation Theology* in which we studied the Judeo and Christian scriptures and Catholic Church documents, particularly the Catechism of the Catholic Church as it related to creation and stewardship of the Earth. Overall, this topic was much better received by the students, and they seemed to enjoy learning about creation in the Catholic tradition and the creation stories of other cultures and religions. The students' experience of this class provided the research data that is the subject of Chapter Six in this thesis.

In 2007, Catholic Secondary College introduced *Earth Spirituality* as a religious education elective to study ecological conversion on my recommendation. In order to achieve

the outcomes for this course, I felt intuitively that the environmental crisis issues must be downplayed if students were going to engage with a sense of awe and wonder of our spiritual connectedness to the Earth. Uhl (2004) recounts a similar experience when teaching a compulsory course on environmental issues. Uhl (2004) confessed that “that while reading student evaluations, it occurred to me that many students were probably leaving BiSci 3 feeling more alienated from the environment than when they came in” (p. xvii); and that they were “probably leaving my course feeling depressed and disempowered” (p. xvii). After reflecting on the students’ evaluations of his classes, he concluded that “the course (and my life) needed to be grounded in awe and empowerment, not doom and gloom.” (p. xviii). Teaching *Earth Spirituality* from an ‘awe and wonder’ approach provided the research data presented in Chapter Seven.

It was the desire to educate and empower students to address the environmental crisis through reconnecting spiritually with the Earth that motivated this research. This research, therefore, explores an innovative pathway presented in the schema in Figure 1.3 that illustrates an ascending order of learning/experience for the development of spiritual ecological consciousness towards ecological conversion. The schema was designed in order to illuminate a suitable curriculum framework for teachers of secondary students to assist in the ‘great work’ for an environmental and educational revolution (Berry, 1988). The curriculum developed for teaching about *Earth Spirituality* is presented in Chapter Three as part of the context for the research data.

### **Site of the research**

Catholic Secondary College a rural city in central Victoria provided the research site for an exploration of students’ experience of spiritual ecological consciousness towards ecological conversion. The fifteen to seventeen year old students who volunteered to participate in the research were members of the *Text & Traditions Units 1 & 2* class studying *Creation Theology* as a topic over six weeks, which equated to approximately 20 x 40 minute

classes. A second group, a Year 12 class, also participated in the study studying a unit titled *Earth Spirituality* over a six month period equating to approximately 50 x 40 minute classes. Both classes were electives within the Religious Education curriculum of the College.

## **Design of the Research and Data Collection**

Given the focus of this research, a qualitative methodology that allowed for hermeneutical/phenomenological interpretation seemed to best support the form of inquiry that I was undertaking. Hermeneutical/phenomenology as a methodology was chosen because it does not try to define objective truth from the collection of data but strives to construct meaning from experience.

The data collection process for this research was firstly an autoethnographic account of the teacher/researchers journey of spiritual ecological consciousness towards ecological conversion. This genre suited my self-reflexivity for sharing my lived experience of coming to ecological conversion and subsequently influenced my teaching for ecological conversion. Ellis and Bochner (2000) argue that the researcher's own experience becomes the object of investigation when the researcher is absolutely committed to and deeply immersed in the phenomena being studied. According to Richardson (2003), the one who does the research is not detached from the lived self and therefore can contribute to an explication in human inquiry (Denzin & Lincoln, 2001, Holt, 2003) into spiritual ecological consciousness. Secondly, semi-structured interviews were conducted with volunteer participants from a study topic *Creation Theology*, and a semester unit called *Earth Spirituality*. Interviewing as a method for data collection is discussed further in Chapter Four.

## **Structure of the Thesis**

The structure of the thesis consists of nine chapters. In Chapter One, I have introduced the focus of the thesis and presented the research questions. I have also explored some of the areas that influenced the need to pursue the call to ecological conversion. Drawing on the literature, and realising that ecological conversion does not happen without prior learning and/or experience, a pathway was discerned beginning with acknowledging the global environmental crisis and moving through various stages of learning and experience to finally arrive at a desire to renew the Earth. It placed the research within a secondary school setting and presented a brief summary of the data collection methods.

In Chapter Two, I explore a number of themes beginning with the global environmental crisis, some of its causes and consequences, ecological consciousness, Earth spirituality, spiritual ecological consciousness and ultimately ecological conversion. It also explores some of the surrounding issues such as the myth of progress and why people may be reluctant to engage with issues influencing the environmental crisis. The literature also presents the theology of the Cosmic Christ and St Francis of Assisi as exemplars of the experience of spiritual ecological consciousness. Ecological conversion is not acquired in a vacuum because the research indicates that humans may have a spiritual and naturalist intelligence (Gardner, 1999). Spiritual intelligence is examined for its contribution towards understanding human's predisposition towards appreciating the natural world.

Chapter Three situates the research within the context of the Catholic Church's response to the global ecological crisis. It reflects on young adults and their views about the environment and spirituality. It also explores the context in which the researcher conducted the research within an educative process and addresses the units of study that provided the participants in the research.

In Chapter Four, the research methodology provides a pedagogical/epistemological framework in which to conduct the research on the phenomenon of the students' experience of ecological consciousness and spiritual ecological consciousness towards ecological conversion. The research methodology underpinning the thesis is located within the realm of qualitative inquiry. Hermeneutical/phenomenology as the chosen mode of inquiry is also presented. An exegesis of the nature of lived experience is undertaken to inform the research questions. The methods for gathering the data are explained in detail as well as the process for data analysis.

Chapter Five presents an auto-ethnographic account of my personal journey through spiritual ecological consciousness towards ecological conversion. This chapter addresses the research question:

What is the lived experience of spiritual ecological consciousness towards ecological conversion of the researcher/teacher in my life's journey?

In Chapter Six, the research data for the Year 10 students' experience of ecological conversion through the study of *Creation Theology* is presented. This chapter addresses the research question:

What was the experience of students who have participated in studies that focused on spiritual ecological consciousness towards ecological conversion?

In Chapter Seven, the research data for the Year 12 students' experience of ecological conversion through the study of *Earth Spirituality* is presented.

What was the experience of students who have participated in studies that focused on spiritual ecological consciousness towards ecological conversion?

In Chapter Eight, a summary discussion of the data is presented. The discussion includes insights from a review of the literature, the experience of *Creation Theology* and *Earth Spirituality* students, as well as the teacher/researcher's autoethnographic journey.

Chapter Nine presents an overview of the thesis, the contribution of this research to extant knowledge, and suggestions for further research.

## **CHAPTER TWO**

### **INFORMING THE STORY**

#### **Introduction**

‘We can mine the oceans, fire the forests, pierce the ozone, poison fresh water, walk on and litter other planets, manipulate cells of plant and animal life, and alter the climate. A radical reverent ‘new way of thinking’, and acting – more humble and more loving towards the Earth – is essential ‘if mankind is to move to higher levels’, indeed if we are to survive’ (Echlin, 2004, p. 151).

As outlined in Chapter One, the purpose of this study is to explore the experience of the students who participated in units of study that focused on spiritual ecological consciousness as well as that of the teacher/researcher. In this chapter, literature relevant to the formation of spiritual ecological consciousness towards ecological conversion is reviewed under five related themes that help to inform the research: a) the global environmental crisis; b) ecological consciousness; c) literature specifically related to the spirituality of the Earth formed the foundation for the studies from which some of the research participants were drawn; d) spiritual ecological consciousness; and e) ecological conversion for sustainability and renewal of the Earth. Other insights gleaned from scholars in various fields are included for their contribution to understanding the human elements influencing responses to the environmental crisis. All in some way add a dimension for understanding the spiritual malaise that has allowed a life style that has impacted on the health of the environment. Secondly, the literature adds insight and depth to the ascending schema designed as a pathway for teaching and learning from understanding the global environmental crisis through to action required to renew the Earth. Finally, the literature also provides a foundation for appreciating important shifts in how humans perceive themselves in a vastly changing and challenging world, where the long-term survival of the human species is in question, (Berry, 1988; Echlin, 2004; Edwards, 2001; Flannery, 2005; The Garnaut Climate Change Review, 2008; Gore, 1993; Hull, 1993; McDonagh, 2000; Millennium Ecosystem Assessment, 2005; Pope John Paul II, 1990; Swimme, 1994; Uhl, 2004; The Worldwatch Institute, 2007).



As described in Chapter One, with a growing awareness of the environmental crisis of the Earth there is a growing recognition that what is needed is a spiritual and moral response to the environmental crisis (Fox, 1983, 1991, 1992, 2006; McFague, 1993; Pope John Paul II, 1990; Rasmussen, 1996; Treston, 2003). Cannole (1993) argued that the environmental crisis will not be solved by science and technology alone, since the rapid growth of consumerism has not taken into account issues of values and ethics. Rather than viewing the current environmental crisis as a scientific, industrial and technological dilemma responsible for unprecedented human induced climate change, this research explores the environmental crisis from the perspective of a spiritual, ethical and moral crisis of relationship with the natural world.

The significance of pursuing this particular approach is firstly because it informed the units of study from which the participants for the research were drawn and secondly, because it provided a framework for the interpretation of the data. The literature chosen thus expounds on the general themes of the reality of the environmental crisis, the need to address the environmental crisis through spiritually reconnecting with the Earth and insights into how this might be achieved in the classroom. It is important to note that the literature is not purely knowledge based but that it also has an experiential aspect. Each of the levels in the schema is reviewed in the discussion of the literature in order to inform our understanding of the experience of spiritual ecological consciousness towards ecological conversion.

### **Aspects of the Global Environmental Crisis**

Some scholars believe that over the last few decades there has been a radical change in the way in which humans view the universe, the Earth, life, and relationships to the natural world (Berry, 1988; Collins, 1995; Devall & Sessions, 1985; Edwards, 2006; 1985; Flannery, 2005; Fox, 1984; Hull, 1993). The idea about who we are, where we came from and the meaning of our lives has been challenged. More importantly, what we have done to our planetary home has challenged humanity to become more conscious of our relationship with the Earth (Berry, 1996). The environmental crisis of the 21<sup>st</sup> Century, now recognised in one

of its forms as climate change, is increasingly regarded as the consequence of human activity (Echlin, 2004; Gore, 2007; McDonagh, 2004; Swimme, 2002; Suzuki, 1997). Hull (1993) reiterates the impact on the planet due to consumerist demands, and argues that this understanding has given rise to an evolution of consciousness regarding the fragility of the environmental ecosystems, that is, the delicate balance between organisms and their environments.

Correspondingly, in the Millennium Ecosystem Assessment (2005), 93 scientists in 103 countries, argued that human activity is placing such a strain on the Earth's finite resources that the continuation of life as we experience it can no longer be assured for future generations of humans. In the opinion of Rasmussen (1996), it is the first time in human history that our power to plunder and destroy is greater than the Earth's capability of renewing itself. Awareness of this delicate balance is a recent phenomenon. It was Rachel Carson in her ground-breaking work *Silent Spring* (1962) who identified the injurious effects of herbicides, insecticides and pesticides on a myriad of life forms. In the wake of her call, a great deal of research has provided evidence both scientific and experiential, that all is not well for the planet and all its ecosystems. According to Dempsey and Butkus (1999), there are a number of factors that have contributed to the environmental crisis, which include "urbanization, growing population, over consumption, economic growth, affluence, poverty, conflict, and ignorance of relatedness to the global ecosystem" (p. 59).

While there are many causes suggested that have influenced the global environmental crisis, I will briefly sketch out a few for example, the myth of progress, people experiencing psychological denial of climate change, the evolution of ecological consciousness, and the need for earth literacy. The environmental crisis is compounded by an individualist and consumerist society that Spretnak (1999), in writing about ecological repression in an industrialised society, maintains is responsible for "the deep root of the collective madness that has polluted and destroyed physical conditions necessary for survival" (p. 76). She also argues that it has resulted in estrangement between human and nature that is indicative of a collective madness creating an ecological paradox. Humans want a healthy living environment and no disruption to comfortable lifestyles but, at the same time, they continue to make choices that despoil our habitat and damage global ecosystems. Furthermore, Emoto

(2004) claims that the dichotomy in our thinking occurred because humans believed the Earth's resources were there for the taking, without considering the viability of the Earth itself. After World War II, there was a powerful drive for "a bountiful and convenient lifestyle at any cost" (p. 68). The cost has now been counted and the conclusion is that ignorance and greed have brought us to a well documented state of ecological destruction and depletion.

### **The myth of progress**

Gardner (2006) draws attention to the consequences of a consumerist society that relies on vital resources and, what he terms, the economic bankruptcy of vital resources. He argues for multiple paradigm shifts to restore the balance between the needs of the Earth itself and the needs of all life. For Gardner (2006), this requires a new emphasis on the current 'progress at any cost' worldview, recasting the challenge for survival as overcoming an insatiable appetite for progress. Similarly, Dempsey and Butkus (1999) see the longing for comfort and control which compels purchasing without conscience as the problem of affluent societies. It is an argument that requires the myth of progress as humans' ability to consume to be dispelled.

The myth of progress Berry (1988) argues has an historical foundation. Berry, (1988) believes that the environmental dilemma emerged out of the industrial age and is now spiralling out of control:

The industrial age itself, as we have known it, can be described as a period of technological entrancement, an altered state of consciousness, a mental fixation that alone can explain how we came to ruin our air and water and soil and to so severely damage all our basic life systems under the illusion that this was 'progress' (p. 82).

Berry (1988), Gardner (2006), Pope John Paul II (1990) and Swimme (1992) are amongst those who argue that the myth of progress bears some of the responsibility for the degradation of the Earth's biodiversity. Merchant (1992) argues that human motivation for consumerist goods, in the name of progress, sets up a what has become a dominant worldview that allows for the resources of the Earth to be continuously and thoughtlessly exploited. For Berry, (1988) human domination of nature has been perpetrated in the name of progress through a kind of intoxication with power that has allowed "an industrial assault upon the planet" (Swimme, 1992, p. 242). If the world's wealth is measured by the abundant and escalating supply of consumerist goods then the downside is that the Earth's resources are correspondingly and continually being depleted (Wilson, 2002). As Pope John Paul II, (1990) explains, "if the delicate ecological balances are upset ... by reckless exploitation ... even if carried out in the name of progress [it] ... is ultimately to humankind's disadvantage" (p. 3). Schaffer (2003) maintains that only by transforming these firmly held and difficult to change beliefs can progress towards long-term sustainability be achieved. Therefore, the root causes require attention rather than simply mitigating the philosophy of progress. In a similar vein, Gardner (2006) urges that these worldview perspectives need to be revised and imbued with sound ethics, creativity and environmental reform involving a change of heart in order to generate authentic human progress in the 21<sup>st</sup> Century.

In redefining progress, the ethics of economics and the way humans choose to live in society must always take into account the relationship between the natural world and human's needs. Gardner (2006) maintains that "ecological wisdom" (p. 3) is required to make sound economic choices that respect the ethical rights of the Earth and all non-human species, and that progress should be "environmentally resilient, broadly shared, and built on justice" (p. 2) with consideration for the moral claims of future generations. Moreover, as Roszak (1995) points out, as the natural world is depleted, the human race suffers impoverishment spiritually, emotionally and physically, and experiences a lack of well-being that can include physical ailments and depression.

White (1967) argues that the myth of progress has been stimulated and sustained by the Biblical injunction in Genesis Chapter One, to 'subdue' the Earth and have 'dominion' over every creature. White maintains the Bible's literal interpretation has not only solidified a

dualism between humankind and nature, but also decreed that it is God's will that humankind utilise nature for their own progress. While Berry (1990) does not completely agree, he does believe that humans, in their thinking and actions, are decidedly alienated from the natural world, and generally believe that the Earth itself has no rights and exists solely for the purpose of exploitation. White (1967) goes further, however, maintaining that Christianity bears an enormous burden of guilt for the environmental crisis and that it will continue and worsen until we discard the Christian axiom that nature has no purpose other than to support human progress. While White's theory presented a challenge to the Christian tradition, his views have been criticised because he seemingly has overlooked other issues, such as population growth (McDonagh, 1986). Schauffer (2003) adds that there is also the problem of language. He maintains that the words 'nature' and 'environment' insinuate an-other-than-human sphere, therefore the Earth is perceived as a resource for human consumption, under the banner of progress, while perpetuating a schism or schizophrenic existence rather than humans being deeply embedded in ecological wholeness.

### **Psychological state of denial**

Another reason proposed for the global environmental crisis found within the literature is our reluctance to address the environmental crisis issues. Scholars such as Brown (2004), McDonagh (1999), McFague (1993) and Postel (1992) describe this as a 'psychological state of denial'. Postel (1992) considers that "most people are in a psychological state of denial" (p. 3) regarding the gravity and enormity of the global environmental crisis because of the incredible human contribution which is beyond general comprehension. Similarly, McFague (1993) suggested that:

Ecological deterioration is sufficiently gradual that it can appear imperceptible. Ecological deterioration is more like alcohol or other drug addiction than war: it creeps up on us daily so that we become used to it... Like addiction, ecological deterioration is insidious ... We become so used to diminishment, so used to environmental decay, that many even deny that it is occurring ... We are, then, dealing with a wily, crafty enemy: *ourselves*, as perpetrators of the ecological crisis (pp. 2-3).

McFague (1997) argues that the interaction and interrelationship between the Earth itself and humanity “is so profound, so thorough, and so pervasive that we usually do not see it” (p. 153). Brown (2004) also concludes that the global environmental crisis is not immediately visible because, for example, urbanisation prevents many Australians from direct contact with environmental destruction. Other scholars like (Granberg-Michaelson, (1988) McDonagh, (1999) Zohar and Marshall, (2000) also support the notion of denial. They note that media reports of environmental disasters that are headlined in the daily news, give a moment of shock, but are devoid of action or commitment to change. Granberg-Michaelson (1988) reflects that every day, silently, unobtrusively and in apparently insignificant ways, ecosystems are despoiled or disappearing while McDonagh (1999) believes it is possible to be so caught up in the notion of progress as to overlook the degradation that is not obvious to the undiscerning eye.

McFague (1993), Macy, (1991) and Treston (2003) go further suggesting that not only it is possible to be ignorant of our contribution to the demise of the Earth, but we can feel apprehensive about what we are experiencing. Thus, we remain on the perimeter of awareness as the consequences are too formidable to confront, affirming that the connection between humanity and nature is sorely depleted, and, therefore, at the root of the environmental crisis. Zohar and Marshall (2000) conclude that:

Most of us don't think about these matters very much because we can't bear to. But threats to global extinction do affect the way we think and behave, throwing us back on more immediate concerns: 'Live today; there may never be another tomorrow'. We seek pleasure and satisfaction as though we were drinking in the Last Chance Saloon, we exploit our fellow human beings and rape the Earth even faster to ensure today's comfort, today's profit. Our whole time-frame shrinks, and with it the context of meaning and value within which we live our lives (p. 31).

One of the ways forward for responding to the ecological crisis, given the complexity of the issues, it to reach out to some of humanity's spiritual leaders. In addition to Pope John Paul II, Patriarch Bartholomew I expressed words of encouragement and hope for the future of the

Earth and its community in 2002 by reminding us that the Earth is forgiving, and it has an incredible ability to heal itself given the goodwill of its people. This response is developed in the next section.

### **Evolution of ecological consciousness**

The scientific and religious literature not only charts the ecological crisis, it also describes moves by organisations and people to become ecologically conscious and to work towards sustainability of the Earth's finite resources (Berry, 1999; Collins, 1995; Carroll, 2004; Edwards, 1991, 1995, 1999; Flannery, 2005; Fox, 1991; McDonagh, 2000, 2004, 2005, 2006; Rasmussen, 1996). For Berry (1999), a new understanding of ecological consciousness “now emerging sees the new period of the Earth community as having a basic nurturing aspect” (p. 140). It is the result of rising human consciousness in response to the seriousness of the ecological crisis. Similarly, both Hubbard (1998) and Seed (1998) suggest that ecological consciousness is now part of the human psyche and humans have had enough exposure to environmental crisis issues to have begun to reflect seriously on their involvement and personal response.

The evolution of ecological consciousness has challenged people to be reconnected to the natural world and to feel comfortable being ‘one with’ rather than dominating the natural world (Treston, 2003). The alternative to domination is to cultivate the virtues of “simplicity, moderation, frugality, and gratitude” (Dempsey & Butkus, 1999, p. 59), which are characteristics of ecological consciousness. Burkhardt and Nagai-Jacobson, (2002) contend that ecological consciousness is much more than a simplistic awareness of one's surroundings, such as the air we breathe, noticing different forms of life, attentiveness to the weather and seasons or spending time at the beach. It requires a deliberate choice to see, feel, smell, and listen, and to experience a sense of awe and wonder at the beauty, multiplicity of biodiversity and complexity of the natural world. A further expression of ecological consciousness is an at-oneness with the environment, such as taking time to observe the night sky, the clouds, the flowing creek, the sunset and knowing that we are more alike than different from what we observe. For Thomashow (1996), it is a conscious relationship, a

desire to be present in and with nature for its own sake, not because of any awakening due to the environmental crisis. Thomashow (1996) refers to this kind of connectedness as ‘ecological identity’; the way different people understand their relationship to the Earth.

Berry (1999) applauds the awakening phase of ecological consciousness. He believes that people are developing new ways of thinking about the Earth that includes views, such as the Earth as a community of subjects rather than a collection of objects. Berry (1999) maintains that humans have begun to appreciate that “the Earth is an awesome mystery; ultimately as fragile as we ourselves are fragile” (p. 173). It is this kind of appreciation that evokes a response from deep within, a spontaneous consciousness of empathy with the dilemma of the natural world (Berry, 1999). Berry (1988) describes three basic principles for ecological consciousness:

1. *Differentiation*: The universe in its primordial state is composed of clearly articulated entities, highly differentiated, each unique and irreplaceable.
2. *Subjectivity*: Each component member of creation is highly complex and resplendent with its own interiority, spontaneity, self-determination and subjectivity.
3. *Communion*: With every other reality of the universe. Each is bonded inseparably from the other. Each is genetically related and each member is immediately present to and impacting on or with every other being in the universe. Every being lives in a ‘*universe – a single, if multiform, energy event*’ (Berry, 1988, p. 45-46).

Everything is implicated, connected, related, and supported by everything else. Creation is a macrocosm of microcosms, all in a delicate balance and harmony, in sympathetic relationship with each other eternally energising, self-governing, self-nourishing and self-fulfilling, like the composition of a symphony (Berry, 1988, Carroll, 2004). Similarly, Ruether (1992) argues that of all the creatures on the planet, it is humans who are capable of reflecting on their behaviour because they have the capacity to think for the universe; to empathise with and speak for the Earth. This process involves self-awareness of our natural place on the Earth where we acknowledge our kinship with all other beings. Matthews (1991) says the real work in developing ecological consciousness is getting to know our true ‘ecological self’. Devall and Sessions (1985) offer a process for the journey to ecological consciousness:



Cultivating ecological consciousness is a process of learning to appreciate silence and solitude and rediscovering how to listen ... involves becoming more aware of rocks, birds, trees and rivers ... the cultivation of the insight that everything is connected ... is learning how to be more receptive, trusting, holistic in perception, and is grounded in a vision of non-exploitive science and technology ... a process of being honest with ourselves and seeking clarity in our intuitions, then acting from clear principles ... is correlated with the cultivation of conscience - an eco-ethic ... a process of ever-deeper questioning of ourselves, the assumptions of the dominant worldview in our culture, and the meaning and truth of our reality (p. 8).

Added to this introspection of the ecological self is a call to action. The challenge is to adopt a radical new way of 'being' in the world, a new way of 'viewing' the world, a new way of 'relating' to the world and a new way of 'acting' in the world which is synonymous with a vibrant consciousness of all sentient beings affected by destructive human behaviour (Brown, 2004). For example, Seed (1988) who came to his own ecological conversion, believes that only a complete revolution in consciousness will benefit the life giving ecosystems on our planet in order to "weave once again the spiritual warp and ecological woof" (p. 6) of our lives. Seed suggests that it is important to recognise and appreciate the depth of spiritual inertia that leaves humans lonely and isolated and unable to hear the voice of the Earth. He goes on to wonder how we will heal the great forlornness of spirit that finds us incapable of feeling loyalty and love for our Earth. One way of responding to Seed (1988) is to become Earth literate so that we know the Earth and express our knowledge from deep within our ecological self.

### **Earth literacy**

Ecological literacy is a prerequisite for developing ecological consciousness. Smith (2005) maintains that ecological literacy or the ability to read the signs of the Earth is the most important literacy for understanding the environmental changes that are influencing the state of the Earth. Orr (1992) warns that failure to be Earth literate "is a sin of omission and of commission" (p. 85) because humans not only use the resources of the Earth without

thinking about consequences but are also negligent in being proactive in nurturing the Earth. As educators of the young, failure to teach Earth literacy sends a message that the environment is unimportant at a time when a sensitive reading of the natural world and the ability to observe nature with discernment is so crucial to how humans act on the Earth.

Orr (1992) describes another dimension of ecological literacy by asserting that it is impelled by a sense of awe and wonder. Similarly, Carson (1984) offered encouragement to parents and educators to expose their children to Earth literacy from an early age in order to preserve and nourish a child's inborn sense of wonderment about the natural world. Wilson (2002) also argues that it is easy to love the natural world once you learn about its mysteries, intrigues and sensitivity to nature 'biophilia', that is, to be imbued with the wisdom of creation. Orr (1992) asks humans to look at the fabric of their lives and argues that "real ecological literacy is radicalizing in that it forces us to reckon with the roots of our ailments" (p. 88) and not just to get angry at the symptoms.

At a deeper level, ecological literacy informs ecological consciousness. Ecological literacy helps to make sense of the environmental crisis by observing Earth's vital signs and offers an opportunity to develop an intellectual capacity to understand the dynamics associated with the environmental crisis. Anyone seeking to become ecologically literate "will appreciate something of how social structures, religion, science, politics, technology, patriarchy, culture, agriculture, and human cussedness combine as causes of our predicament" (Orr, 1992, p. 93) that is, viewing the world through an Earth literacy lens in order to observe the environmental crisis within the whole fabric of life. On a more positive note, Orr (1992) believes that ecological literacy can be channelled for positive action through prudence, a deep sense of kinship with the Earth and sheer delight in creation so that we can learn to love the Earth and therefore walk more lightly upon it. Earth literacy then, is an acquired skill, the reclaiming of a lost natural ability to read the Earth's vital signs and so the ecological crisis is, in part, a cultural crisis (Smith, 2005).

Finally, Berry (1988), Uhl (2004) and Wessels (2003) argue that a renewed ecological consciousness is non-negotiable for humans in the midst of a global environmental crisis.

What is required is an Earth literacy that will guide society in embracing the challenges inherent in the environmental crisis in this pivotal moment in history when we are called to an ecological conversion so that we are proactive in the restoration of the health of the planet. One form of positive action is the expression of a spiritual relationship with the natural world that can be enriched by understanding Earth spirituality.

## **Earth Spirituality**

For Fox (1983), Earth spirituality can be thought of as the oldest experience of ecological consciousness and Earth literacy and can be a powerful influence towards engaging in an ecological conversion. Tacey (2003) identifies the importance of the role of indigenous people as mentors in the hope of reclaiming a sense of the Earth as sacred. Altman (2002) contends that for the indigenous person, sacred refers to an awesome moment, special place, something unexplainable which fosters dreams and has the capacity to change or transform a personal way of seeing or explaining a phenomenon. Porritt (1991) expresses Earth spirituality in symbolic terms as mother, as an alive planet, and as a sacred place. The expression of sacred Earth is foundational within the indigenous worldview that understands that the whole cosmic universe is impregnated and permeated by the Great Spirit, the source of life (Fox, 1991). There is no dichotomy between spirituality of the Earth and life, hence the well-being of the Earth equates to the well-being of its people. The conviction that Earth does not belong to us, rather we belong to the Earth is paramount to indigenous spiritualities (Burkhardt & Nagai-Jacobson, 2002; Fox, 1991). Fox (1991), elaborating its history suggests that it is not only prevalent to indigenous spiritualities it is also the most ancient spirituality in the Bible. The Bishops of the Murray Darling Basin, for example supported the biblical tradition of Earth spirituality:

As we ponder this in relationship to the Murray Darling Basin, we see the rivers and all their birds, fish and animals as creatures that emerge and are sustained by God's ongoing creation. The loving act of ongoing creation has enabled them to flourish in this place. They are part of a story of ongoing creation that takes place over millions of years. They are God's gift to us. They can communicate something of God to us (p. 8).

When the spiritual leaders from over 100 nations gathered in Moscow for the 1990 Global Forum for Spiritual and Parliamentary Leaders they issued an *Appeal to the World*, from their religious perspective, which linked the global environmental crisis with the separation between people of faith and the rest of the natural world:

We believe the environmental crisis is intrinsically religious. All faiths, traditions, and teachings firmly instruct us to revere and care for the natural world. Yet sacred creation is being violated and is in ultimate jeopardy as a result of long-standing human behaviour. A religious response is essential to reverse such long-standing patterns of neglect (cited in Treston, 2003, p. 43).

Treston (2003) argues that this pivotal statement sees the ecological crisis as having spiritual roots and is, therefore, of significance to all religious traditions. Tacey (2003) also believes there is a connection between what is perceived to be a lack of spirituality in a consumerist world and rising interest in Earth spirituality.

Many ecologists, Bradley, 1992; Carmody, 1983; Carroll, 2004; Edwards, 1995 and Hart, 2004 express the need for acceptance and embrace of Earth spirituality or deep ecology as a way forward in restoring right relations with the Earth. Merchant (1992) argues that the rise in Earth spirituality is a consequence of a profound sense of crisis in the way humans relate to the environment because Earth spirituality focuses on “the transformation of consciousness” (p. 111), which is fundamental to its acquisition. Without ignoring the unique place and special role of humans in creation, it is pertinent to recapture a sense of the “immense diversity, interconnectedness, organic integrity, and beauty of creation as expressive of God’s immensity, goodness, and full purpose as Creator” (Brown, 2004, p. 17).

Recent writers on the themes of the Earth as spiritual, as sacred, as sacrament, and as a community of subjects, recognise that the health of all creatures is dependent on the health of the Earth itself for everything exists within the environment of Earth (Berry, 1998; Edwards, 2007; Fox, 1991). There is also a growing interest in spirituality that is not aligned

with any religious tradition, a universal spirituality of the Earth, see for example, (Fox, 1991; McDonagh, 1986; O'Murchu, 1997; Tacey, 2003; Treston, 2003). Echlin (2004) expresses Earth spirituality as "the art of loving God, present in the Earth" (p. 30). It is this depth of spirituality, not rational environmental principles, which some scholars believe must be present to sustain the Earth against superior forces, that is, a human centred, consumerist, secular and materialistic way of being in the world which works against sustainability (Carroll, 2004). O'Murchu (1997) argues that humans need to reclaim a spirituality of the Earth because it is an inherent attribute of humanness. It is not an addition but in fact intrinsic to being a holistic person.

In contrast to this view of spirituality, Brown (2004) argues that our impecunious Earth spirituality is largely to blame for the calculating and colonising ways we control the world. This has come about in part because in the past Earth spirituality has been largely ignored or rejected as it has been aligned with paganism. This is the case even though there are many expressions of Earth spirituality that are influenced by traditional religious beliefs and cultural experiences (O'Murchu, 1997). Further, Schaufler (2003) argues that some humans scrupulously avoid using endearing terms about our relationship with the Earth because such emotive terminology is foreign to us, and it suggests a lack of ability for hard headed, rational decision-making for addressing the environmental crisis. Fields (2005) expresses a deep appreciation of the intimacy of the spirit in nature and recognises a number of expressions of Earth spirituality in response to the environmental predicament:

A growing recognition that we need a spiritual response to the ecological devastation of our planet is taking shape under many banners: spiritual ecology, deep ecology, Earth-based spirituality, eco-psychology, feminist ecology, creation spirituality, Gaia consciousness, and Dharma Gaia to name just a few (p. 1).

Many expressions of Earth spirituality have originated within different cultures, experiences and places, but they all contribute to an understanding of the authenticity and expression of a deep relatedness and connectedness to the Earth (Fox, 1991). Much can be gleaned from the many experiences of Earth spirituality that can prepare humans for

engagement with ecological conversion. Earth spirituality within the Catholic tradition however requires an added theological dimension, that is, it needs to be imbued with Christian scriptures and teachings (Edwards, 1999). The term used in this thesis that encapsulates Christian beliefs about Earth spirituality is spiritual ecological consciousness.

## **Spiritual Ecological Consciousness**

Understanding spiritual ecological consciousness is paramount to this thesis. It sets the thesis soundly within the Catholic tradition of relationship with the natural world as distinct from other traditions that are not based on faith in the Judeo-Christian God as author of all creation. Spiritual ecological consciousness, within the context of this research, is fundamental for coming to ecological conversion. This thesis explores student experience of spiritual ecological consciousness through teaching and learning in both the *Creation Theology* class and the *Earth Spirituality* class.

Spiritual ecological consciousness is an extension of the previous notions of the environmental crisis, ecological consciousness and Earth spirituality. It is especially attentive to the Judeo-Christian perspective of the sacredness of the Earth. Sacredness is understood in this context as holy, as of special importance to God (Altman, 2002). According to Altman (2002) “a thing or place becomes sacred ultimately to us when it is perceived as somehow able to energize within us those feelings and concepts we associate with the spiritual dimension of life” (p. 4). This perspective is enhanced by a faith dimension that recognises God as the creator of the universe and therefore intimately involved with His creation.

According to the Judeo-Christian tradition, creation belongs to God and therefore humans are subservient to the design of God for creation. Humans are expected to honour, respect and nurture the Earth because it is the first revelation of God (Fox, 1991). Spiritual ecological consciousness embraces the teachings and traditions of the Judeo-Christian religious tradition regarding the intimacy of a covenantal relationship between God and His

creation. It is imbued with the traditional call to stewardship of the Earth as well as the current call to ecological conversion, because the initial relationship between humans and the rest of the natural world has become estranged, distorted and fragmented to the detriment of the total Earth community (Pope John Paul II, 1990).

Spiritual ecological consciousness is, therefore, the conscious acceptance that each person is spiritual and is one's most ecological self when experiencing connectedness to the natural world and the Spirit God through "our self-understanding as a human-planetary species" (O'Murchu, 1997, p. 25). Burkhardt and Nagai-Jacobson (2002) maintain that experiencing spirituality through connectedness with all the manifestations of the natural world can foster appreciation of our true spiritual selves. It can encompass a sense of the sacredness of nature that is inherent in creation, or it can direct a person to the Creator God through a loving, energetic appreciation of nature. Spiritual ecological consciousness helps to address the spiritual malaise associated with loss of connectedness to the natural world.

### **Environmental Crisis: A Spiritual Crisis**

Although I have commented on a societal spiritual crisis as one of the perceived causes of the global environmental crisis earlier, I believe the following adds to our understanding of the implications of spiritual alienation from the natural world. Treston (2003) argues that long-term sustainability requires a significant and impressive change in the way we live but more importantly, what is needed is an essential moral and spiritual conversion. This is supported by Hull (1993), who believes there is an increasing number of people who are committed to the notion that the ecological crisis is fundamentally a spiritual crisis of huge proportions, which has consequences for the Earth. For Leirvik (1994), the first step towards sustainability is to reclaim a sense of the sacred, the spiritual. He argues that:

A solution to the environmental crisis cannot be found unless we realize that we are facing a spiritual crisis. The ecological problems can be solved only

through a profound change in values and behaviour, and they challenge us to seek a renewed spiritual consciousness of the wholeness of life (p. 1).

This is based on the belief that there is a spiritual crisis in our society that seems to project meaninglessness at its core and a lack of a larger spiritual purpose. This deep realisation and confession is supported by Gore (1992) whose faith in the Christian tradition offers hope in the future for the continued fullness of life for all:

Of course faith is just a word unless it is invested with personal meaning; my own faith is rooted in the unshakeable belief in God as creator and sustainer, a deeply personal interpretation of and relationship with Christ, and an awareness of a constant and holy spiritual presence in all people, all life, and all things (p. 368).

Spiritual ecological consciousness encourages faith and hope in the future regardless of what is identified as a desperate plight for the Earth. It is a depth of evolutionary consciousness that recognises the profound covenantal love between Creator and creation, Creator and humans and humans and the rest of the Earth community. It is within this 'spiritual web', that the intimate connection embodied in spiritual ecological consciousness is experienced by those who are open to acknowledging it and embracing it (Edwards, 2006). Burkhardt and Nagai-Jacobson (2002) believe that the more we are attentive to creation, the more we appreciate that honouring and caring for nature is part of our faith, then the more we are drawn into intimacy with God. For example, Seed (1988), feels physically ill when hearing of or witnessing old growth forests being ravaged for the sake of supplying wood chips for profit. In defending the forest he asserts, "I am part of the rainforest protecting myself. I am part of the rainforest recently emerged into thinking ... the change is a spiritual one, thinking like a mountain" (p. 36). This can appear very radical, but it is closely aligned with St Francis, Patron Saint of Ecology, who spoke of the creatures of the natural world as brothers and sisters (Fox, 1993). Fox believes that to be spiritually ecologically conscious is to be fully alive, 'filled with *ruah*, breathing deeply, in touch with the wind' (p. 11). In other words, the environmental crisis as a spiritual crisis is expressed in a lack of a holistic connectedness to nature and the Creator as expressed in some of the traditions of the Catholic Church.



## Catholic Ecology Theology

McDonagh (1999) argues that Catholic ecology theology has a long history but one that is not well known to the members of the Catholic tradition. He maintains that many opportunities for leadership in environmental renewal have been missed because of the Church's preoccupation with other social justice issues or in-house re-structuring. According to Hart (2004), there have been numerous pastoral letters and papal addresses beginning with Pope Paul VI's *A Hospitable Earth for Future Generations* to the Stockholm Conference on Human Environment in 1972 through to Pope John Paul II's World Day of Peace Address in 1990 *The Ecological Crisis: A Common Responsibility*. In a later address, Pope John Paul II in 2001 called the catholic people to an ecological conversion as a matter of faith. Summing up Catholic ecology theology from the various church documents Hart (2004) suggests environmental theology is:

... theology that explores and is influenced by the reality and consciousness of human existence in an interrelated and interdependent biosphere and universe. It is a creation-centred theology: it recognizes that the biotic community – the community of all life – lives in a created cosmos and is engaged not only with the intricacies of that existence, but also with its source: the Creator Spirit who continues to create the cosmos and guide it towards the full realization of its envisioned potential (p. 4).

More specifically, the relationship of God with His creation:

The Spirit's creative imagination and creating power and compassionate love flow into this ongoing work, through the stability of guiding laws and from the contingency of divine involvement. Cosmic dynamics, biological evolution, and divine wisdom and compassionate creativity weave a cosmic tapestry and play the music for the cosmic dance it represents: an interplay of energies, elements, entities, events, and engagements having the signature of the composer and artist (p. 4).

This definition of ecology theology introduces a comparatively new understanding of God as God of the Cosmos. Therefore, to complete an understanding of ecology theology it is important to understand Jesus as the Cosmic Christ.

### **Jesus: The Cosmic Christ**

In the person of Jesus of Nazareth, we have an exemplar of spiritual ecological consciousness:

He is the image of the unseen God and the first-born of all creation, for in him were created all things in heaven and on Earth: everything visible and everything invisible...all things were created through him and for him...Before anything was created, he existed, and he holds all things in unity (Colossians 1:15-17).

Edwards (2006) argues that the Cosmic Christ is source of all creation; all things are sustained by Him, and through His life, passion and death, are all reconciled by Him and through Him. The 'all things' embraces the total biological world of creatures. Within the Catholic tradition, the Cosmic Christ is God, who became a sentient being, one with all creatures who experienced loss, grief, suffering and death. Fox (1988) says of Jesus, the Cosmic Christ, that He is the one who connects all things, the "pattern that connects" (p. 133) and that the theology of the Cosmic Christ ushers in an era of relationship with the whole cosmos. For Edwards (1991) Jesus was born of the same stuff as all creation, the dust of dead stars, forged of the same elements as the Earth. He was nourished by the fruits of the Earth and personifies relatedness and interconnectedness with all creation.

Fox (1988) believes that the quest for the Cosmic Christ requires old paradigms to be jettisoned to make way for new Earth saving theological education that places the historical Jesus of Nazareth in his true place as the Cosmic Christ. Fox (1988) concludes that what is needed is a *metanoia*, a revolutionary change, a conversion, new wineskins for the new wine with the revelation of the Cosmic Christ:

The old wineskins of an anthropocentric, rationalistic, anti-mystical, anti-maternal worldview cannot contain the new wine of creativity that is exploding wherever minds, and hearts and bodies are being baptized into a living cosmology, into the living Cosmic Christ (p. 79).

During his life on Earth, Jesus immersed himself in nature. He drew on the natural world around him for sound pedagogy. In the Gospels Jesus told his apostles to walk lightly on the Earth “take nothing for your journey, no staff, nor bag, not bread, nor money; and do not have two tunics” (Luke 9:1-6) and he continually warned against accumulating wealth and possessions (McDonagh, 1990). However, as Nash (1991) points out, it is important not to trivialise Jesus’ connection to nature for the sake of an ecological ethic. Nash argues that the Gospels are primarily to do with justice for all creation and “the gospel we are called to incarnate relates to *all* creatures in *all* situations” (p. 166). Edwards (2006) teaches that this is the ecological vocation that all are called to respond to, as spiritually and ecologically conscious, which recognises the “fundamental *unity* of creation” (p. 61). He also suggests that Jesus, the Cosmic Christ, is the alpha and omega, immersed in the evolutionary story of all creation (Edwards, 2006). The Eucharist, the ultimate celebration of Jesus’ relatedness to creation, is a celebration of all creation because ‘an authentic Eucharistic imagination leads to an ecological ethos, culture, and praxis’ (Edwards, 2006, p. 105). This perspective differs, for example, from deep ecology because the basic premise for spiritual ecological consciousness is that the Earth belongs to the alpha and omega of all creation, the Cosmic Christ.

### **Comparison of deep ecology with spiritual ecological consciousness**

In 1973, Arne Naess coined the term ‘deep ecology’ in an article entitled *‘The Shallow and the Deep, Long- Range Ecology Movement (1973)*. Among the famous advocates of deep ecology are Fritjof Capra, Joanna Macy, Freya Mathews, Carolyn Merchant, John Seed and George Sessions. Naess (1973) argued that nature has intrinsic value separate from the needs of human beings, and went on to develop the basic principles of deep ecology with George Sessions in 1984. Deep ecology requires adherents to be proactive, and provides a philosophical base and source of strength for advocacy for the

rights of the entire Earth community. While its principles contain many of the qualities of spiritual ecological consciousness, deep ecologists are critical of the Judeo-Christian notion of stewardship that promotes an anthropocentric worldview (Sessions, 1995). Deep ecology therefore, sets the stage for a new ecological paradigm to counter the dominant mechanistic paradigm that had reigned supreme, and without challenge, since the Industrial Revolution (Merchant, 1992).

Merchant (1992) argues that deep ecology is radical ecology because it challenges the current mechanistic worldview by its holistic worldview where all creatures have rights and demand an equal opportunity to live in harmony within the balance of nature. According to Merchant (1992), it involves a new metaphysics to understand right relations with all creatures in the natural world and a new psychology, that is, an absolute intermingling of the individual with nature. Deep ecology espouses ethical, eco-centric behaviour rather than homocentric behaviour. It is an action paradigm. Deep ecology heralds a 'wake up' call and challenges humans to recognise the suffering of the Earth and to demand radical change for the survival of all species, especially the Earth itself, for itself (Merchant, 1992). Deep ecology requires the added dimension of the Judeo-Christian scriptures account of God's relationship with the Earth if it is to offer an authentic approach to spiritual ecological consciousness. As not all people are adherents of the Catholic or Judeo-Christian traditions, it is valuable for this thesis to appreciate that people have some degree of both naturalist and spiritual intelligence regardless, or in addition to, any religious persuasion.

Deep ecology is concerned about Earth wisdom, Earth ethics, Earth justice and Earth harmony as diametrically opposed to exploitation, legalities and the use and abuse mentality that is responsible for the collapse of many ecosystems and the disruption of the homeostasis of the natural order (Lovelock, 1989). It is a deeply sensitive approach to nature, an emphatic openness to the total Earth community at the deepest level of self and Earth wisdom. Deep ecology is attentive to the spirituality of the Earth and ecological consciousness at its most meaningful connectedness, that is, that humans are part of the Earth and not distinct from it (Devall & Sessions, 1985). It is not dependent on major religious traditions, although adherents of major religious traditions will bring their own spirituality to deep ecology. This said, deep ecology is more closely aligned with the various oriental religions and indigenous

Earth spiritualities which are founded on a deep sense of interrelatedness, interdependence and interconnectedness with the natural world. This view runs counter to the current dominant worldview (Devall & Sessions, 1985; Lovelock, 1989; Merchant, 1992). Table 2.1 illustrates the contrast between a dominant worldview and deep ecology. I have added a column for spiritual ecological consciousness by way of comparison and contrast with both a dominant worldview and deep ecology.

Dominant World View	Deep Ecology	Spiritual Ecological Consciousness
Dominance over nature	Harmony with nature	Stewardship of creation
Natural environment as resource for humans	All nature has intrinsic worth/bio-species equality	All creation is valued by God and has intrinsic worth
Material/economic growth for growing human population	Elegantly simple material needs	Elegantly simple material needs
Belief in ample resource reserves	Earth 'supplies' limited	Earth's 'gifts' are finite
High technological progress and solutions	Appropriate technology; non-dominating science	Myth of technology 'progress' is flawed
Consumerism	Doing with enough	Care for the common good
National/centralised community	Minority tradition/bio-region	Social justice requires attention to local/global issues

Source: Adapted from Devall & Sessions *Deep Ecology: Living as if Nature Mattered*, (1985 p. 69).

Table 2.1: *Contrast between a Dominant Worldview and Deep Ecology and Comparison with Spiritual Ecological Consciousness.*

### **Humans as spiritual and naturalist**

There are a number of scholars who argue that humans are both spiritual and have a natural ability to appreciate nature. Firstly, the naturalist intelligence postulated by Gardner's (1999) research into multiple intelligences, secondly, Zohar and Marshalls' (2000) work on

spiritual intelligence and thirdly, eco-psychology as developed by Roszak (1995) become relevant. These three strands are significant because they illuminate eco-spirituality not as an ‘add on’ to our consciousness but rather, a re-awakening of something that is very much part of who we are as people. After all, growth in spiritual ecological consciousness does not take place in a vacuum. Gardner (1999) argues that every person is endowed with multiple intelligences and that people are gifted with ability or have developed their multiple intelligences at different levels of enlightenment or achievement. He has added to his existing seven intelligences, originally developed in 1983, a naturalist intelligence, existential intelligence and spiritual intelligence. Gardner (1999) states that in Western culture, the word *naturalist* aptly describes people who engage experientially with the natural world and who have a deep knowledge of the natural world such as Charles Darwin. With reference to spiritual intelligence, Gardner argues that:

*An a priori* decision to eliminate spiritual intelligence from consideration is no more justifiable than a decision to admit it by fiat or on faith...once one includes the understanding of the personal realm within a study of intelligence, such human provocivities as the spiritual must be considered (p. 53).

Also included for recognition is the existential intelligence. Gardner (1999) suggests that from the early evolution of humans they possessed the ability to engage in the big questions about life and to “imagine the infinite and the ineffable and of considering cosmological issues central to existential intelligence” (p. 62). This is consistent with the great philosophers who have pondered the meaning of life and in particular, humans’ place and purpose on Earth in relationship with all creation. What this means for this thesis is that educators of youth can take a positive approach to teaching for spiritual ecological consciousness as, according to Gardner, the students have the potential to be responsive to learning school based units like *Earth Spirituality* and *Creation Theology* investigated here.

Zohar and Marshall (2000) suggest that Spiritual Intelligence, (SQ) addresses problems of meaning and value; the intelligence with which we can place our actions and our lives in a wider, richer, meaning-giving text. SQ is the necessary foundation for the effective

functioning of both Intellectual Intelligence (IQ) and Emotional Intelligence (EQ). For them, SQ is our ultimate intelligence. The qualities of a highly developed SQ include flexibility, a deep self-awareness, the capability of facing suffering and transcending pain, inspirational and visionary, values conscious, aware of not doing harm, a holistic presence of goodness, which are all necessary attitudes and aptitudes for the acquisition of ecological consciousness and spiritual development. For Zohar and Marshall (2000) argue that everyone has the capability and giftedness to tap into their own SQ to be imbued with wisdom in the search for meaning in their lives. It finds a home in the deep recesses of the self “that is connected to wisdom from beyond the ego, or conscious mind, it is the intelligence with which we not only recognize existing values, but with which we creatively discover new values” (Zohar & Marshall, 2000, p. 9). SQ is not aligned with any religious affiliation or the prerogative of religious people, an atheist can have a high SQ (Zohar & Marshall, 2000). Everyone can use “our innate SQ to forge new paths” (p. 9) to discover new meaning in life and direction for the future (Zohar & Marshall, 2000).

In relation to the ecological crisis as being firstly, and largely, a spiritual crisis, Zohar and Marshall (2000) conclude that the collective SQ is low in modern society because humans “live in a spiritually dumb culture characterized by materialism, expediency, narrow self-centredness, lack of meaning and dearth of commitment” (p. 16). Zohar & Marshall (2000) use the term ‘spiritually dumb’ as a description of those who have strayed from attentiveness to the Earth and its functions. Brown (2004) also argued that “despite material affluence, modern life can be emotionally and spiritually fragmented and impoverished” (p. 18), which adds to the spiritual dumbness.

Grappling with the root causes of the environmental crisis has allowed for the development of a new strand of psychology called eco-psychology. Ecopsychology is concerned with how people respond to the threats of environmental disaster evidenced as eco-anxiety as well as how people generally relate to the natural world. Roszak (1995) suggests that the destruction of the Earth environment by the modern industrialised society is a form of community psychosis. He argues that much of the depression in society can be related to lack of connectedness to the Earth. More importantly though he believes that those

who would try to counsel the depressed are themselves alienated from the natural world, which is an indicator of humans' spiritual condition because of a lack of reciprocity between the human and non-human world which is so vital to health and well-being for all.

Roszak (1993) argues that “ecology needs psychology, psychology needs ecology” (p. 1) because “the core of the mind is the ecological unconscious” (p. 2). He believes that to restore loss of relatedness to the natural world it is necessary to visit the many sources of Earth spirituality among them “the traditional healing techniques of primary people, nature mysticism as expressed in religion and art, the experience of wilderness, the insights of Deep Ecology” (p. 3) which can help to recreate the ecological self. Roszak (1995) argues that people must listen to the voice of the Earth deeply embedded in their psyche in order to reconnect to the wellspring of life, the natural world.

As a species capable of self-reflection, it is possible to give due attention to the existential, naturalist and spiritual intelligences as well as seeing the connection between a healthy planet and a healthy people in order to reinvigorate ecological consciousness for sustainability of life (Gardner, 1999; Roszak, 1995, Zohar and Marshall, 2000). Each of the theorists contributes an insight into student readiness for embracing ecological conversion by drawing on their spiritual intelligence and naturalist intelligence. In the history of the Catholic tradition, there is an example of a man who exemplified the existential, naturalist and spiritual intelligences and understood the concept of relatedness for well-being, that is, St Francis of Assisi.

### **St Francis of Assisi: Exemplar of the naturalist, spiritual and existential intelligences**

Along with Jesus of Nazareth, the Cosmic Christ, St Francis of Assisi (1182-1226) is an exemplar of spiritual ecological consciousness. St Francis is well-known for his simple life in kinship with all other creatures. St Francis was canonised in 1228 and was declared Patron Saint of Ecology by Pope John Paul II in 1979. He is renowned for his ‘at-oneness’ with the



creatures of the natural world. Francis took interconnected and interdependent with nature one step further to inter-relational where he called all creatures ‘brother’ and ‘sister’ consistent with a deep awareness of relatedness to the natural world in all its forms (Boff, 1982; Hart, 2006; Nash, 1991). According to Hart (2006):

A relational consciousness makes people aware of the beauty and vitality of all the natural world of which they are a part. It stimulates a greater appreciation of all nature, a sense of kinship with all life, and an awareness of the divine sparks and individual spirits in other creatures. This consciousness stimulates a mystical bonding with creatures in themselves, and can also lead beyond them to the spirit immanent within and permeating all creation (p. 105).

The mystical bonding in a sacramental sense which St Francis experienced, revered the Creator in all creatures such as the sun, water, fire, moon, plants, rocks, birds and animals. Francis loved them for themselves because of his deep consciousness of his relatedness to them (Nash, 1991). The Canticle of Brother Sun suggests that his ethic was one of loving respect for all his cosmic friends (cited in Nash, 1991).

We praise You, Lord, for all Your creatures,  
especially for Brother Sun,  
who is the day through whom You give us light.  
And he is beautiful and radiant with great splendor,  
of You Most High, he bears your likeness.

We praise You, Lord, for Sister Moon and the stars,  
in the heavens you have made them bright, precious and fair.

We praise You, Lord, for Brothers Wind and Air,  
fair and stormy, all weather's moods,  
by which You cherish all that You have made.

We praise You, Lord, for Sister Water,  
so useful, humble, precious and pure.

We praise You, Lord, for Brother Fire,  
through whom You light the night.  
He is beautiful, playful, robust, and strong.

We praise You, Lord, for Sister Earth,  
who sustains us  
with her fruits, coloured flowers, and herbs.

Today, Francis is presented to the Catholic tradition for emulation and imitation as a model of spiritual ecological consciousness and of ecological covenantal responsibility (Nash, 1991). This has not always been the case for, as Gottlieb (2006) reminds us, in general, the full implications of his reverential attitude with nature had generally been ignored by Catholics. It took over 700 years for St. Francis to be proclaimed Patron Saint of Ecology by Pope John Paul II (1979), who presented St Francis to Catholics as an example of living an ecological vocation. In the 13<sup>th</sup> Century Francis prayed for the well-being of all God's creatures from a friendship relationship between humankind and nature, thus offering an example of how to live out an environmental ethic compatible with Christianity today (Wilson, 2002). St Francis as patron saint of ecology is an exemplar for Catholics who desire to come to spiritual ecological consciousness towards an ecological conversion.

### **Call to Ecological Conversion**

The call to ecological conversion by Pope John Paul II (2001) commits the faithful of the Catholic tradition to the needs of the Earth. In the light of a growing ecological consciousness of the state of the planet, Pope John Paul II (2001) argued that, "It is necessary, therefore, to stimulate and sustain an 'ecological conversion', which over these last decades has made humanity more sensitive when facing the catastrophe toward which it was moving" (p. 1). Catholic Earthcare Australia (2005) accepted the challenge to educate for ecological conversion and confirmed that:

In justice, it is an urgent task for Christians today to be reconciled with all creation, and to undertake faithfully our responsibility of stewardship of God's gifts. To achieve such reconciliation, we must examine our lives and acknowledge the ways in which we have harmed God's creation through our actions and our failure to act. We need to experience a conversion, or change of heart (p. 20).

The process for ecological conversion or a change of heart can be a special moment of enlightenment or experienced over a period of time. As attitudes change progressively, but profoundly, an interior movement occurs at an unconscious level that only gradually rises to consciousness (Collins, 1995). The next movement requires repentance which means ridding oneself of denial, harshness of heart, human reluctance, and a failure to see ourselves through the eyes of the natural world, that is, from the perspective of other living beings. This moment of insight, of seeing ourselves through a cosmic lens is a significant movement towards ecological conversion spiritually, emotionally and intellectually and encompasses a completely new way of thinking. It is a very different approach to viewing one's place in the world. This type of conversion is encountered during periods of personal and societal crisis when decisions are made with far reaching consequences for society. Collins (1995) points out that:

Just as we must undergo a conversion and a change of life if we are to become persons of genuine spiritual conviction and religious faith, so to become ecologically aware we must pass through a real conversion process to come to an existential consciousness of our relationship to the world. It is only when we pass through this process that we realize that spirituality and ecology are not mutually exclusive but actually belong together (p. 174-175).

Foundational to the ecological conversion process is the acceptance that human beings are genetically and biologically bound to the Earth and, therefore, fundamentally dependent on its health. As a consequence, ecological conversion is open to Earth ethics and Earth rights (Collins, 1995). Moreover, Treston (2003) suggests that humans will respond differently depending on their life situations and their experience of nature and cultural environments that influence their level of readiness to engage in ecological conversion. The level of readiness can be prompted by a local environmental dilemma as, for example, when the Catholic Bishops of Queensland (2004) argued that the Great Barrier Reef, an Australian icon, is a sacred responsibility.

Ecological conversion calls for people to examine their lifestyle and subsequently make sound ethical choices because creation is sacred and endangered. Ecological conversion

requires the acquisition of new qualities such as “attentiveness, listening, appreciation, recognition, respect, hope, contemplation, love and delight for the Earth” (Brown, 2004, p. 18). It is about addressing our underlying spiritual disease, rather than saving a rainforest or reducing, reusing, recycling, or refusing to consume or exploit for sustainability. In short, it is about our spiritual relationship with the Earth, which, for some people, has been neglected over recent times (McDonagh, 1999; Seed, 2005).

### **Educating for ecological conversion**

However, since Pope John Paul II’s call to an ecological conversion, there have been a number of educative initiatives that have developed into concrete programs. For Berry (1988) believes that education for the ecological conversion begins with the universe itself. The study should be “grounded in the dynamics of the Earth as a self-emerging, self-sustaining, self-educating, self-governing, self-healing, and self-fulfilling community of all the living and nonliving beings of the planet” (p. 107). Berry (1988) argued that, “education should be based on awareness that the Earth is itself the primary physician, primary lawgiver, primary revelation of the divine, primary scientist, primary technologist, primary commercial venture, primary artist, primary educator, and primary agent and in which other activity we find in human affairs” (p. 107). Such a mega-education could provide a cultural and historical context in which students can discover their identity within the great story of the universe, the Earth story and the human story. This is the era when students have the information and the opportunity to engage in cosmic mythology akin to the many creation stories. Thus for Berry (1990), education for ecological conversion begins with telling the story of the universe to awaken consciousness of our true place in the universe. As humans grow in appreciation of the great story of the universe, they can feel empowered to speak and act for the consciousness of the entire natural world because of their new sense of connectedness and relatedness to the natural world.

McFague (1993) argues that there is cause for optimism as numbers of people embracing spiritual ecological consciousness increase daily with insight, discussion and education. Spiritual ecological consciousness is focused on optimism “based in part on its

readings of evolutionary history but also on an illumination model of how human beings change” (p. 71). If we can all learn about our “common creation story ... we *will* change” (p. 71), that is, we will become ecologically conscious, strive for spiritual ecological consciousness and undergo ecological conversion. Swimme, (1992) adds his own spirit of optimism:

When we humans realize that our ancestry includes all forms of life, all the stars, the galaxies, even the fireball at the heart of time, when we humans realize that our primary allegiance includes not our nations but also the nations of all species, and the whole stupendous living Earth, then a spring of power will renew the peoples of the planet (cited in McDonagh, 1986, p. 1999).

McDonagh (1986) argues that the renewal that this story has the potential to deliver is of similar magnitude to the beginnings of Christianity. It is a story that must be told to the ends of the Earth for it may well be that the survival of life on Earth depends on it. As well as telling the great story it is important to ‘listen’ for as Roszak (1998) suggests it is in listening to the voice of the Earth deep within our being, spiritually, aesthetically and biologically that “we will gracefully move to do what is ecologically right and balanced” (p. 16). Brown (2004) suggests listening to the many voices of creation is to be attentive in a profound sense and alive to the astonishing rich possibilities that spirituality of the Earth offers us. Creation spirituality was called ‘nature mysticism’ by earlier eco-theologians who believed every creature is a word of God and a book about God. Fox (1991) also believes that creation spirituality offers us an awakened mysticism, that is, to be rapt in awe is a necessary celebratory part of our lives in order to engage with the mysteries of creation. Treston (2003) adds that this requires spending time getting to know the natural world and contemplating the presence of God in the diversity of creation.

Tacey (2003), reflecting on the context in which students might develop creation spirituality admits:

I continue to be impressed by the vitality and strength of youth spirituality, and its' astonishing appearance in the midst of a secular education system that does not encourage it, a religious system that does not understand it, and a materialistic society that gives no official sanction to it (p. 175).

Therefore, education for ecological conversion requires tapping into the students' life-world because their learning does not take place in a vacuum. The students have numerous experiences and influences that can influence their decision-making to embrace their own spirituality, which is important for an ecological conversion. Fox (1991) also speaks in positive terms of youth in relation to creation spirituality because it can celebrate their belonging to the universe and their unique existence, hence the need to pass on the cosmic story because youth need a vision and they have a right to it in order to be empowered to do what is right. Tacey (2003) agrees that the environmental crisis brings out the valiant and courageous dimensions of youth and gives them a cause to commit to and express their empathy with the Earth even if it is through criticism of their elders. It is important for youth to have a vision of how the Earth and life could be for them. Their concerns for the environment can then be transformed into something deeper and more expressive of youth culture's spirituality, that is, the search for Earth values and spiritual affinity with nature that transforms environmental concern into creation spirituality (Tacey, 2003).

Reflecting on his work with young adults, Tacey (2004) comments on the prophetic nature of the spirituality of youth and believes that they are the ones who are in touch with the way the spirit is moving in their lives and in society. They are discovering that they are drawn to spirituality and in particular, earth spirituality. For example, 'youth spirituality points to a future integration of spiritual and ecological revolutions' (p. 176). The two are linked, which is consistent with Berry (1999) who believes some humans are entering the Ecozoic Era with its attendant evolving consciousness of all creation present as a community of subjects in a mutually enhancing disposition, which can enhance the progress towards ecological conversion.

Education for spiritual ecological consciousness requires eco-wisdom in order to tap into the readiness of students to engage with the universe story. It needs to be imbued with

awe and wonder, and include a deep sense of the spiritual. Above all, education for ecological conversion requires sound science and sound religion (Toohey, 2006). At the same time, Uhl (2004) argues that to come to ecological consciousness educators must firstly 'awaken' the heart and to be imbued with the 'mystery' of the Earth and the universe. Uhl (2004) realised that his students must be gently guided towards a sense of 'awe and wonder' of the Earth as a living entity in itself with its own needs. This importance of a sense of 'awe and wonder' is expounded on in Chapter Three when the literature surrounding the call to an ecological conversion is revisited especially in the development of the *Creation Theology* and *Earth Spirituality* units of study.

## Summary

The contribution of a number of scholars in the literature encompasses an exploration of spiritual ecological consciousness towards ecological conversion. Of particular interest is appreciation of the environmental crisis as a spiritual and moral crisis of relationship with the natural world thus establishing an interconnected network that formed the conceptual framework underpinning this thesis. This is important for the interpretation of the experience of students who participated in education on *Creation Theology* and *Earth Spirituality* for spiritual ecological consciousness towards ecological conversion. It also examined a number of scholarly appraisals from a Catholic Christian perspective regarding Catholics role as stewards of the Earth with responsibility for the health of environment and ultimately the renewal of God's earth. This involves a new way of viewing the Earth and one's place in the ongoing story of the Earth because it is deemed by ecologists of a religious or spiritual persuasion, that the crisis will not be corrected by science, technology and governments alone. What is considered necessary is a change of heart in order to undergo an ecological conversion and to engage in the process people are required to become ecologically conscious. To do this, each person is encouraged to become ecologically literate, that is, to read the signs of the Earth through their own experience but also informed by the scientific community. It is also necessary to reclaim our spirituality of the Earth, to view the Earth as sacred in itself and valued by God as creator of all.

The literature expounds on the various levels of the schema which depicts a process from environmental awareness to ecological conversion as presented in Chapter One. The literature also helped form the curriculum for teaching and learning for spiritual ecological consciousness towards ecological conversion. As well as providing valuable material for the various topics in the educational units it also offered valuable insights into where the students could be at in their lives such as being caught up in the myth of progress or in a state of denial. The various educative and or experiential levels are revisited in the data presented in Chapters Five, Six and Seven as they explore the experience of students' learning and in addition an autoethnographic journey of spiritual ecological consciousness towards ecological conversion as lived experience of the researcher/teacher.

It is difficult to learn about the environmental crisis, human dominance over the Earth, Earth exploitation, loss of biodiversity, humans in denial or loss of spiritual connectedness to the Earth without personalising it. The environmental crisis involves all people at some level of commitment. Chapter Three continues a review of the literature as it places the insights above into a context for teaching and learning of spiritual ecological consciousness towards ecological conversion.



## CHAPTER THREE

### THE STORY IN CONTEXT

#### Introduction

The purpose of this thesis, as outlined in Chapter One, is to investigate the experiences of spiritual ecological consciousness towards ecological conversion. In addition to my own experience, this thesis explored the experience of students participating in studies that focused on teaching and learning about spiritual ecological consciousness towards ecological conversion. The participants were fifteen to seventeen year old students attending Catholic Secondary College who studied either the *Creation Theology* topic or *Earth Spirituality* unit. Part of this study explored whether youth would respond positively to the teaching for spiritual ecological consciousness towards ecological conversion if the educative process was cognisant of current thinking concerning youth spirituality and their attitudes regarding environmental issues. In Chapter Two, literature on the environmental crisis was presented as well as exploring the environmental crisis as a spiritual and moral crisis of relationship with the natural world. In order to understand what this means, it was important to examine earth spirituality, creation theology, ecopsychology and the naturalist, spiritual and existential intelligences for their contribution to the process of ecological conversion as they help to inform the context for this thesis.

In general, context helps to situate research in relation to the research questions because the “context places certain limitations on the general applicability and acceptability of methodological procedures” (van Manen, 1990 p. 163). The broad context of this research is an understanding that there is an environmental crisis of a magnitude not experienced before in human history, and that this crisis is human induced, in part, because of our loss of spiritual connectedness to the natural world. Moreover, the context is influenced by recognising that people, including youth, are reluctant to engage in an understanding of the environmental crisis that might mean making necessary changes to their lifestyle (Connel; Fien; Sykes and Yencken (1999). However, according to McDonagh (1999) and Tacey

(2003), one way to engage students with environmental issues is to recognise that youth are spiritual beings who are seeking a pathway to an authentic spirituality. An awakening of Earth spirituality and an appreciation of the Earth as sacred is presented in this thesis as a way of proceeding.

The context is also influenced by the background of the researcher, as I have reflected on my own journey of coming to understand the subject of this research from personal experience. Upon reflection, I believe that my pathway was influenced by education of a scholarly nature as well as the experience of life. The context for this research is also situated within an education curriculum that was designed to educate students on the subject of spiritual ecological consciousness.

In this chapter, I will firstly examine the role of the Catholic Church as the teaching for ecological conversion took place within the context of an historical and contemporary response to the challenge of the global environmental crisis. Secondly, issues with current practice regarding education of students for addressing the environmental crisis. Thirdly, important considerations regarding education for ecological conversion are explored. Fourthly, the curriculums designed to educate students for spiritual ecological consciousness towards ecological conversion are presented.

## **Catholic Church and the Global Environmental Crisis:**

### **Pope John Paul II's Call to an Ecological Conversion**

As the new millennium unfolds, the Catholic Church considers the environmental crisis to be multidimensional in its manifestations of reality. For example, within the Catholic tradition, human induced climate change is viewed as a crisis of consciousness, conversion, conscience and commitment (Brown, 2004; Hart, 2004). Historically, Carmody (1983) argues that “by and large, Roman Catholic and Eastern Orthodox theologians have paid ecology

little heed” (p. 5). McDonagh (2000) and Fox (2004) view the lack of leadership by the Catholic Church as a tragedy, as it was one of the last global institutions to address the severity of the environmental crisis now facing the planet. McDonagh (1999) argues that once people are educated about the connection between their faith and ecology they see that it is important. However, in the ranks of the Catholic hierarchy and clergy, it barely rates a mention, and it is possible that Sunday Mass adherents would not have heard a sermon on the call to ecological conversion and the creation theology that supports it (McDonagh, 1999). None-the-less, there has been strong leadership emanating from environmental scientists and religious leaders, especially the late Pope John Paul II, over the last two decades. It is important to note that everyone, including Popes, Bishops, clergy and teachers, are influenced by their own experiences of connectedness to the natural world and are also called to rethink traditional theology in order to undergo a conversion process to address the global ecological crisis that has now come to full force since White’s (1967) accusations.

In a number of addresses, for example the 2002 *Declaration on the Environment* the late Pope John Paul II endeavoured to galvanise the Catholic people to action. He called for an ‘ecological conversion’, and a rethinking of the words in Genesis 2: 15, “Yahweh God took the man [sic] and settled him [sic] in the Garden of Eden to cultivate, and take care of it.” Pope John Paul II believed that humans have betrayed the mandate God gave to humankind to nurture the Earth, and to be in ‘right relations’ with the Earth. In his *World Day of Peace Address*, also in 2002, Pope John Paul II spoke of his urgent desire for all people to embrace ecological consciousness and ecological conversion. His address titled *Peace with God the Creator, Peace with all of Creation* sets a context for his directive:

In our day, there is a growing awareness that world peace is threatened not only by the arms race, regional conflicts and continued injustices among peoples and nations, but also by a lack of due respect for nature, by the plundering of natural resources and by a progressive decline in the quality of life (p. 1).

Pope John Paul II (1992) said that, regardless of religious persuasion, people have an overwhelming awareness the Earth is suffering and the increasing devastation of the world of

nature is apparent to all. Sixteen years have passed and those in the Catholic tradition are only just beginning to hear his message about expectations for Catholics, as an essential part of their faith. However, over the last decade, some Catholic Bishops have accepted the challenge to include care of the Earth in their social justice programs, for example, at the U.S. Catholic Bishops Conference (1992) the following statement gives an insight into a new understanding of creation theology: “Stewardship implies that we must both care for creation according to standards that are not of our own making and at the same time be resourceful in finding ways to make the Earth flourish” (p. 6). Neilson (1996), in commenting on the new theology adds that all creation is a gift from God and worthy of respect and therefore humans who are gifted with intelligence are disposed to be attentive to the needs of the Earth, hence the call to an ecological conversion.

## **Education for Ecological Conversion**

### **Difficulties with current practice**

Similarly, suggesting the urgency of but lack of processes for eco-education, Swimme (1996) reminds educators that the current system does not focus enough on “the transformation of the subjectivity of the student” (p. 32) that would be required for educating youth in the story of the universe. He adds that a cosmological education is necessary so that it is possible to feel the connections in an imaginative way. This is not a given for Echlin (2004) who argues that even when the environmental education curricular are developed and included in Religious Education, youth display little enthusiasm for taking responsibility for the natural world. He argues that surveys conducted to examine youth’s attitudes to the environment “confirm unsuspected lack of interest in the environment among the 18-35 age group” (p. 17). Also, the comparatively small number of students enrolled in *Environmental Science* is a further indicator that studying the Earth and environmental issues is not generally high for students (Victorian Curriculum and Assessment Authority: Statistical Information: VCE Assessment Program (2007).

Berry (1999), Orr (1992) and Tacey (2003) are scathing in their criticism of education up to the present time, which continues to educate students for their role in extending human domination over all creation, and ‘not for intimate presence to the natural world’ (Berry, 1999, p. 72). Carson (1965) expressed her vision for education in environmental values by suggesting that education regarding sacredness of place through contemplation of the beauty and complexity of the Earth can offer life-long endurance to discover love for *oikos*, the Earth. The concepts of spirituality and sacredness of place in relation to the Earth are explored in this research.

The *Victorian Essential Learning Standards: Overview* (VELS) (2005), which is a framework applicable for preparatory classes to Year 10 and forms foundational studies for VCE, states that “environmental sustainability will not only draw on the full range of interdisciplinary domains but will also be embedded within such disciplines as Science, Geography and Economics” (p. 4). It is of concern that of the eight domains for study, (major areas of study) and in the light of the global environmental crisis, a domain was not created to specifically inform students of all matters relating to climate change but rather determined that such matters would be included within the eight domains. One possible explanation could be that teachers generally are not trained to teach for environmental consciousness and are possibly struggling with the impact of the global environmental crisis themselves. For example, they may be struggling with a consumerist mentality, being caught up in the myth of progress, in a state of denial, feeling alienated from the natural world or are under the same pressures students are under to ‘do well’ within existing measures.

By way of contrast, McDonagh (1999) considers education in ecology theology as an opportunity to re-engage the energies of youth as they are usually concerned about the state of the environment. Tacey (2003) in support of this observation adds that youth culture has turned out to be the conscience of today’s society and that youth are very much in touch with environmental issues, sympathetic with the demise of the Earth and culturally aware of the environmental degradation in its various manifestations. Youth in general are critical of the adults of this generation, as they believe that adults have ‘stuffed up’ the environment. It is

interesting to note that Neist (2004) lists nine genuine concerns of young adults today and environmental degradation issues do not make the list unless it is cloaked in concern for social justice issues. Generally, the eight are concerned about themselves and their own needs, which are expounded on further by Connell et al (1999) who conducted research into environmental attitudes of young people in their final two years of schooling in two Australian cities. This study was prompted by the realisation that very little was known about youth attitudes to the environment, that is, young people's views, beliefs, actions and commitment toward the environment in Australia. Connell et al. (1999) revealed an overall negative view of youth's concern for environmental issues. With regards to opportunities to learn about the environment, and in particular the issues that have influenced climate change, many young people were very disparaging of the failure of their schools to inform them through environmental education (Connell et al., 1999).

It is significant that teenagers appear to suffer from 'action paralysis' regarding environmental concerns. Similarly a recent survey of 400,000 fifteen year olds conducted for the *Organisation for Economic Cooperation and Development* (OECD) (2006) and analysed by the *Program for International Student Assessment* (PISA) confirmed a lack of interest in matters to do with the environment as well as a significant degree of pessimism about their future and the future of the natural environment. According to PISA, the findings seriously challenge the popular belief that young people care for enviro-green-issues. Milburn (2008) sums up the Australian teenage response to the survey question regarding students feeling responsible towards resources and the environment by concluding that Australian teenagers are not ready to change their lifestyles to preserve nature or to get involved with solutions to the environmental crisis. The 'action paralysis' of youth is processed in the data analysis in Chapters Six and Seven where teaching and learning helped students to overcome their sense of powerlessness regarding what they could do to make a difference to the environment.

### **Possible directions and important considerations for educating for ecological conversion**

Pope John Paul II (1991) directs teachers to take up the challenge of educating young people to ecological consciousness and ecological conversion as education has an important role to play in addressing the environmental crisis. Victorin-Vangerud (2008) agrees, suggesting that educating for ecological consciousness means formulating a deep empathy with other living organisms. Berry (1990) argues that the work of educating towards environmental consciousness has begun and is apparent in documents from religious and governmental departments. See for example, *On Holy Ground* (2007); *Environmental Education for a Sustainable Future: National Action Plan* (2000). While studies of the environment have mostly been present in educational curricula under many guises, there is now a more explicit requirement to incorporate studies of the environment across the study domains or key learning areas, for example, the *Victorian Essential Learning Standards* (2005) as mentioned earlier.

A comparatively new dimension has been added to the studies of the environment, which invites educators to venture into uncharted waters. An important shift in teaching environmental studies includes recognising, valuing and respecting the sacred and spiritual dimensions of the environment (Besthorn, 2002). For example, *Educating for a Sustainable Future: A National Environmental Education Statement for Australian Schools* (2005) lists amongst its goals for educating students for environmental sustainability, that they should “appreciate and respect the intrinsic value of the whole environment and a sense of the sacred” (p. 8). A further goal is that students should have a knowledge and understanding of “the ways different cultures view the importance of sacredness in the environment” (p. 9). A holistic approach is recommended for environmental education including “indigenous knowledge, needs and rights of future generations ... quality of life, spirituality, stewardship and sustainable development” (p. 17). The document goes on to inform teachers about strategies for teaching values clarification and analysis and includes the suggestion that “students can be encouraged and enabled to explore concepts of spirituality and sacredness of place and stewardship of finite resources” (p. 20), and argues that values education for

sustainability should impregnate the whole curriculum. Within the Catholic tradition, a number of Catholic Education Offices in Victoria have designed or adopted studies of the environment and embedded them in their schools and colleges religious education curriculum under the generic title of *Stewardship of the Earth*. In the Diocese of Sandhurst, for example, the *Religious Education Curriculum: Source of Life* (2005) presents a unit of study that explicitly examines the relationship humans have to the Earth and the Judeo-Christian God of creation. It is also designed to inform students about the environmental crisis and their responsibility to contribute towards sustainability for all of creation. The key understandings for students for the study generally include:

- Human beings are deeply connected to all creation and exist in inter-relationship with each other, other living beings and all created reality.
- All creation shares a common origin story.
- The goodness of God is revealed in the whole of creation.
- God's being is relational and the inter-relatedness found in creation is sustained by God.
- The fact that Jesus became flesh and lived an Earthly life affirms the goodness of creation and God's love for us.
- Particular understandings of God have an impact on attitudes and behaviour. Some images of God fostered an attitude of domination and exploitation of the environment in the past. Other images encourage an attitude of respect and reverence (*Stewardship of the Earth*, 2005, p. 1).

The overall design of the course is intended to infuse students with a holistic appreciation of the spiritual connectedness of all creation, the individual and communal priority to be wise and faithful stewards of the Earth, to accept the challenge to pursue eco-justice and to adopt a lifestyle consistent with the aims for sustainable living. The combined wisdom and directives flowing from both government and religious educational authorities exhorts and encourages educators to prepare their students for a spiritual and ecological renewal to address the crisis of the twenty-first century. Clearly, this is a call to work with students in levels of consciousness beyond basic environmental awareness.



### **Teaching and learning for ecological conversion: utilising constructivism**

The notion that the everyday world of learning is constructed by the individual in the process of gaining an understanding of what it means to make sense of a complex and ever-changing world is explored, for example, the global environmental crisis. Therefore, a constructivist approach to teaching and learning informed the teaching and learning process. Such a stance is consistent with the intent of this study namely, explicating participants' experience of developing a sense of spiritual ecological consciousness towards ecological conversion.

Conventional environmental education aims to develop an awareness of and concern about the environment, and its associated problems. It is anticipated they will have the knowledge, skills, attitudes, motivations and commitment to work individually and collectively towards solutions for current problems and the prevention of new ones. However, as I argued in Chapter Two, teaching for ecological conversion requiring another dimension embracing the moral, ethical and spiritual dimensions of the environmental crisis. *On Holy Ground* (Catholic Earthcare Australia, 2006) presents the many faces of ecological conversion as the call comes not only from Pope John Paul II but also from bishops, governments, biodiversity, indigenous people, scripture, theology, future generations and the Earth itself (Catholic Earthcare Australia, 2006). It invites a response and encourages people to become ecological conscious and to assume an ecological vocation to renew the Earth.

According to Gardner (1999), people have a natural curiosity about nature and connectedness to the natural world. With this understanding, teaching for ecological conversion depends on students' naturalist intelligence, even though it may have been unexplored by the student. Students' naturalist intelligence is evident in their concern for the health of the planet as expressed in their interview comments. Also, it is reassuring that students are imbued with a pre-disposition for spiritual intelligence (Zohar & Marshall, 2000) even though as Neist (2004) argues, as a rule, young adults remain cataleptic regarding their

spirituality. This does not mean they do not experience spirituality, they do, they may not be aware of their experience or they cannot name it as a spiritual experience.

Education in the area of Earth spirituality needs to be tuned into the students' natural strengths. For Rhoads (2004), "as a result of learning, people are lead to profound repentance, a turning around, an abandonment of attitudes and actions that are cavalier toward nature and an embracing of actions that tread lightly on the Earth" (p. 1). However, being a young adult trying to make sense of the call to an ecological conversion is fraught with frustrations and opportunities that are complex. As Neist (2004) explains, "spiritually speaking they are both part of one movement as all frustration offers a moment of opportunity and all opportunities will offer moments of frustration" (p. 3). It all involves risk taking. The frustration that youth feel about the environmental crisis as presented by Connell et al. (1999) can offer the students an opportunity. It involves risk taking on a number of levels: physically, spiritually, emotionally, socially and financially (McDonagh, 1999). Education in Earth spirituality challenges youth to resist the pursuit of their cultural lifestyle and to forge new pathways to sustainability. If students are educated to live in a responsible relationship, an ethical, moral and spiritual relationship with the natural world then they are more likely to commit to caring for nature (Tacey, 2003).

Ecological pedagogy requires aims and objectives that must be soundly based on science and Catholic theology (Toohey, 2007). It requires a change from an anthropocentric worldview to an eco-centred worldview for contemporary education, that is, a new paradigm that could encompass the knowledge, skills, attitudes and values for ecological consciousness. This involved a movement from a rational epistemological approach as expressed in scientific learning, for example, the teaching of facts, to a metaphysical approach where the important philosophical questions that could be life changing can be discussed. In addition, it could focus on a different relationship with creation that valued the biblical call to stewardship of the Earth.

Nonetheless, conceptual understanding is also important. Hence, I believe constructivism is an appropriate pedagogical strategy to employ in teaching for ecological conversion (von Glasersfeld, 1997). Firstly, knowledge is not submissively accepted by the senses or by communiqué, but is assertively constructed by the student. After accumulating information the student then processes it for meaning. Cognition then, is adaptive and acts as a facilitator in assisting the student to arrange and make sense of the experienced world, not the unearthing of objective ontological truth or reality. Learning, therefore, is central for acquiring knowledge about the world in which the learners create meaning from their everyday world (von Glasersfeld, 1997, van Manen, 1990).

Secondly, knowledge is not passively received through instruction, it has to be reflected upon, and interpreted within the life-world experience of the student (Glasersfeld, 1997). In the case of ‘ecological conversion’ the students were introduced to the concept, it is their experience of that learning that is challenging, significant, transformative, meaningful and life changing. De Gues (1997) sums up the process “to cope with a changing world, any entity must develop the capability of shifting and changing, of developing new skills and attitudes: in short the capability of learning ... the essence of learning is the ability to manage change by changing yourself” (p. 20). Personal ecological conversion is deemed to be fundamental for a holistic pedagogy to address all the issues surrounding ecological conversion.

Clearly, my stance in this thesis, firstly, is to respond to Pope John Paul II’s challenge to educators to address the environmental crisis through a call to ecological conversion. Secondly, as a teacher, I wanted to be responsive to the mandate from education departments to educate students for the challenges of environmental degradation. Thirdly, having reflected on my own lived experience towards ecological conversion, I wanted to know about the experience of my students. Finally, it became important to design a course of study to address the call to ecological conversion. The study with Year 10 students was *Creation Theology*, a topic within *Text & Traditions Unit 2*. This topic required, telling the universe story, the Earth story, an exegesis of biblical texts with supplementary material from supporting texts

such as Catholic Church documents, for example, the Catechism of the Catholic Church. It also influenced the Year 12 unit of study *Earth Spirituality* which is described in more detail in the next section.

## **Units of Study for Education for Ecological Conversion**

### **Creation Theology Topic**

The context of the *Creation Theology* topic is significant because it provided the participants for the research data in Chapter Six. In Chapter One, I presented a summary of my teaching and learning for engagement with environmental issues from several experiences which lead to a different approach through *Creation Theology*. The *Creation Theology* topic was designed to explore the approach suggested by Berry (1988) and Swimme (1992) of teaching the story of the universe through an ‘awe and wonder’ perspective as presented in Chapter Two. Figure 3:1 which illustrates the continuum in designing a process for teaching and learning about spiritual ecological consciousness towards ecological conversion.

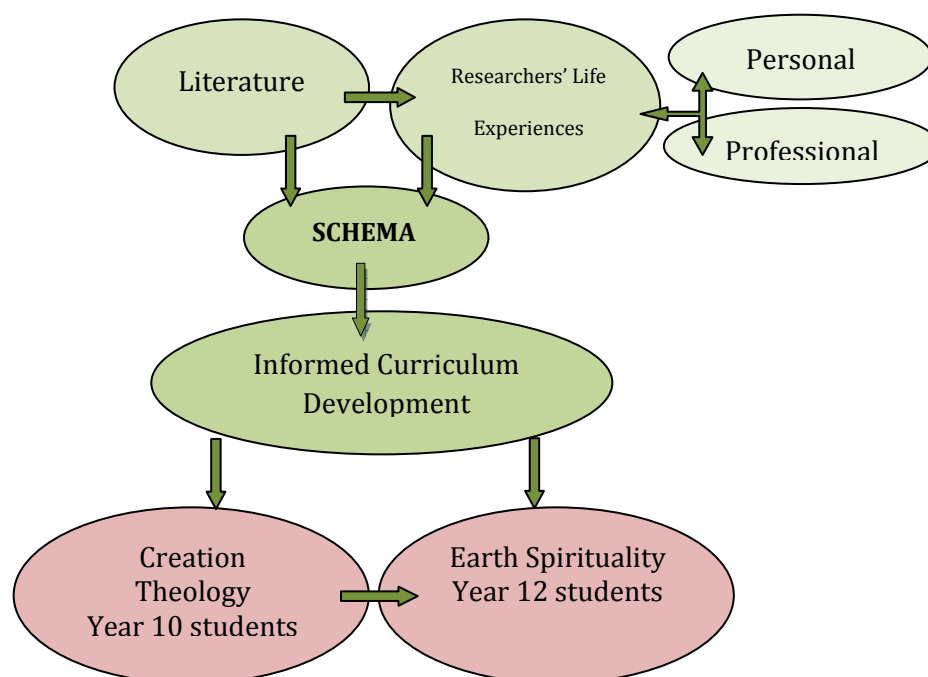


Figure 3:1 *Design of a Curriculum Process for Ecological Conversion*

The notion that the everyday world of learning is constructed by the individual in the process of gaining an understanding of what it means to make sense of a complex and ever-changing world is explored, for example, the global environmental crisis. Therefore, a constructivist approach to teaching and learning informed the teaching and learning process. Such a stance is consistent with the intent of this study namely, explicating participants' experience of developing a sense of spiritual ecological consciousness towards ecological conversion. Below in Table 3:1 *An Overview of the Creation theology Curriculum* is an outline of the six weeks topic *Creation Theology*. Each Learning Outcome has an achievable goal that directs the study. Secondly, a strategy for teaching the Learning Outcome is presented that offered a variety of mediums for learning as well as student involvement in their own learning. Thirdly, the significance of the Learning Outcome highlights the continuum of learning about spiritual ecological consciousness towards ecological conversion and fourthly, a few comments on the overall process.

Learning Outcome	Teaching Strategy	Significance of the Learning Outcome	Comments
<p>1. Investigate the scientific story of the universe</p> <p>Students viewed a video on the scientific creation of the universe.</p> <p>PowerPoint presentation on the 15 billion years story of creation.</p> <p>Ritual of the Cosmic Walk.</p>	<p>Teaching and learning provided the science supporting the Earth story, in order to generate the beginnings of ‘awe and wonder’ about creation. Everything needed for the evolution of human beings was present, a perfect cocktail of elements and conditions for life on Earth.</p> <p>The powerpoint also presents the unfolding story of the universe but continues the story to the present day gently introducing the understanding that all is not well on the Earth.</p> <p>This story was then dramatised in the Cosmic Walk, a ritual that offers an experience of the evolution of creation from the Big Bang through to the present conditions responsible for the degradation of the Earth.</p>	<p>Six lessons were required to introduce this topic to begin the ‘great story of the universe’.</p> <p>In the schema it links into ecological consciousness, the beginning of understanding the conditions for life as delicately balanced and interdependent in ecosystems.</p> <p>The ritual of the Cosmic Walk which requires a rope laid out in continuing circles beginning with the ‘Big Bang’ in the centre. A candle is lit at each significant time in the narration of the universe story to create a sense of the spiritual.</p> <p>Importantly, the story includes the participants’ presence as they</p>	

understood that they are in the continuing story of the Earth.

2.

Compare the two stories of creation from Genesis Chapters 1 & 2. Students read the two stories of creation and discussed the sequence of creation in both stories. They were directed to note the differences in the two stories.

The first story, the creation in six days, highlights all the conditions for life on Earth, a paradise for humans. However, the scene is set for human domination over all other creatures in the words ‘dominate and subdue’ as all creation was given over to the needs of humankind.

The second story creates some confusion as after the creation of all creatures humans are directed to ‘nurture and care’ for the Earth and so the call to stewardship was introduced to the students.

The scientific evolutionary story and the Judeo-Christian stories of creation were compared which was another ‘awe and wonder’ moment at the similarity of sequence of creation.

Two lessons were given to this learning outcome.

The links to the schema are in ecological consciousness after reviewing the implications of ‘subdue and have dominion over’ was explored.

Earth spirituality as a story of creation and relationship with the Earth and

Spiritual ecological consciousness because it confirms for the students that the Earth belongs to God.

3.

Compare the creation stories from other cultures and present one to the class. Students were directed to research other creation stories and present one to the class. The themes of interconnectedness, earth spirituality and other religious traditions that have a profoundly spiritual connection with the Earth. The themes of interconnectedness, of creation stories in power

Six lessons were given over to this learning outcome. The students presented their research of creation stories in power

with the class in a medium of interdependence and interrelatedness were explored through their many stories of creation as well as the play and as an interview. Their points, video, puppet show, in a scientific and their own choosing. Judeo-Christian stories of creation. presentations were linked to Earth spirituality in the schema.

4.

Examine God's intimacy with his creation through a study of Book of Job, Chapters 38 & 39. With reference to the Bible the students engage in an exegesis of the verses in Chapters 38 & 39 from a literary perspective. Discuss the litany of creatures and God's knowledge of and care for all the creatures. The students' reflection on the poetic accounts of Gods' understanding and care for all the creatures on the Earth introduced the notion of spiritual ecological consciousness. This was intended to provide another 'awe and wonder' moment for the students as in general they had not read Job before and had not thought of God as being involved with His creation. It provided a powerful statement that the creatures of the Earth belong to God and presented a challenge to think about them in a respectful way because God cares for them by name. Two lessons were given to reading and understanding the messages in the Book of Job to do with the rest of the natural world. Such questions as "Where were you when I laid the foundations for the Earth" In the schema these insights fit within the learning for spiritual ecological consciousness especially as the recurring theme in Ch 38 & 39 is God's wisdom about all things created.

5.

Examine articles from the Catechism of the Catholic Church. A number of articles relating to the call to stewardship, care of the environment and attitudes towards creation were examined for relevance to their learning on this topic. The Catechism of the Catholic Church placed stewardship relationship with the natural world. Two lessons were required to explore the official teaching of the Catholic Church to do with the relationship with the natural world.



Catholic Church, which refer to human's relationship with the natural world. Catholic members of the tradition. This text which inspires the members of the Catholic tradition. This text which inspires the members of the Catholic tradition. This text which inspires the members of the Catholic tradition.

6.

Investigate creation theology and the role of Jesus as the Cosmic Christ. A presentation on the theme of Jesus as the Cosmic Christ beginning with the Prologue of St John's Gospel. This study places Jesus within the cosmic story of the universe. Jesus, the Word of God who entered the human story as the Cosmic Christ is presented as God's deepest involvement with creation. Jesus, born of the same elements as all other creatures on the planet, who lived with the environment, in relationship with the natural world. The Cosmic Christ who suffered and died for all creation highlighted the value of all creatures to God. As disciples of Jesus, Catholics are called to be in right relationship with the natural world and to see creation as a revelation of God. The theology of the Cosmic Christ is presented as another 'awe and wonder' moment as they contemplate Jesus' relatedness to the natural world.

Table 3.1: Overview of the Creation Theology Curriculum

The six Learning Outcomes for this topic are knots in the web for understanding the complexity of the universe story from the Catholic Christian perspective and the students' involvement in the story through life and faith. It was designed to draw out the students' understanding of what has changed in their life-world regarding the way humans relate to the Earth. It was hoped that students would make the connection between human behaviour and the environmental crisis and how the Earth should be respected as opposed to reality today. The experience of processing the information and making it relevant to their own lives is presented in Chapter Six, where the students are interviewed regarding their experience of learning about this topic and their movement towards ecological conversion. The positive affirmation experienced in teaching *Creation Theology* provided an incentive to extend the teaching and learning time and so a curriculum for *Earth Spirituality* was realised.

### **Earth spirituality**

The curriculum for *Earth Spirituality* was developed with insights of previous experience and literature in mind as presented in Chapter One, and explored more fully in Chapter Two. The goal was to teach multiple themes on creation that would, if the students were open to learning, invite them to join the global ecologically conscious community in what Berry (1999) calls the 'Great Work' for the future of all life on Earth. The unit was developed using the ascending schema for acquiring spiritual ecological consciousness as a guideline after realising that ecological conversion requires a process through experience, self-reflexivity and education. I presented *Earth Spirituality* to the Curriculum Committee at Catholic Secondary College and argued for its inclusion in the subject selections for senior secondary students because of its relevance to the current environmental crisis and as an authentic response to Pope John Paul II's request for innovative programs to address ecological conversion. Therefore, fifteen students who were in Year 12 chose to study *Earth Spirituality* as their elective religious education program. An overview of the unit outcomes, the teaching strategies used to ensure best practice, the significance of teaching a particular theme as well as supporting comments are detailed in Table 3.2: An Overview of the *Earth Spirituality* curriculum.

**Learning**

**Outcome**

**Teaching Strategy**

**Significance of the Theme**

**Comments**

**1. Investigate the scientific account of the creation of the universe.**

Earth Spirituality began with a scientific study of creation. The scientific account was presented through the video ‘SPACE’ by Sam Neil. This was followed by a PowerPoint presentation that recalled the 15 billion year universe story, the Earth story and the human story.

This provided an opportunity for discussion on the creation of the universe. It presented an alternative way of thinking about creation from the biblical account. A graphic scientific account began the ‘awe and wonder’ approach as the students were required to contemplate their common ancestry with the natural world, that is, that everything they see, themselves included, was created from the same elements, created from star dust. The immersion of the ‘self’ in the universe story was experienced in the Cosmic Walk ritual.

Six classroom lessons were devoted to this topic. The link to the ascending schema is the development of ecological consciousness. This study was new to most of them and they had not in general contemplated the scientific account of creation or considered themselves as part of the continuing universe story. The idea that everything on Earth was created from the same elements including themselves began the ‘awe and wonder’ experience.

**2:**

**Draw conclusions from the biblical accounts of creation in the Book of Genesis, Chapters 1 & 2.**

The common understanding among the students is that there is only one biblical account and so this opened up a discussion on the differences between the two accounts and what each account had to offer by way of God's design for His creation and expectations for stewardship.

It began an understanding of environmental awareness and initiated a discussion on 'subdue' and have 'dominion' over versus 'care' and 'cultivate'. It also offered an opportunity to explore God as Creator and introduced the notion of an interdependent relationship between humans and the natural world.

Three lessons were devoted to this learning outcome. It is relevant to the schema because it begins the creation theology as a religious education unit and a sense of spiritual ecological consciousness.

It also introduced an early stage of ecological consciousness as similarities between the scientific and Judeo-Christian accounts of creation especially the evolution of life on Earth, that is, everything was ready for life on Earth before the advent of humans suggesting dependency of all other creatures.

**3. Investigate the creation stories from the major religions in the world.**

This theme opened up discussion on the various religious traditions relationship with the Earth and how their traditions responsibility to the Earth is expressed. This theme is important for it began the notion of how anthropocentric western culture is compared to eastern culture. Researching creation stories introduced a global perspective on different appreciations of beginnings and were given an opportunity to take the emphasis off the notion that only

Six lessons on the different Major Religious traditions creation stories and attitudes to the natural world offered education regarding Earth Spirituality as an important part of the process towards ecological conversion as depicted in the ascending schema.

research creation stories on the world wide web and present their findings to the class. Catholics have the creation story that is, all peoples have their mythology to explain creation and attitudes to the natural world.

**4: Experience the ritual: the Cosmic Walk developed by Sr Miriam of McGillis of Genesis Farm.**

The Cosmic Walk is a ritual in which the universe story is told and a representative student makes the journey down the 15 billion years to the present time, which culminates in an acknowledgement that the air, soil, water and biodiversity are threatened by human activity.

The Cosmic Walk offered the students a ritual experience that traced life from its beginnings in the 'Big Bang'. The ritual commentates on the evolutionary activities of fifteen billion years of creation of the cosmos, the galaxies and the Earth and culminates in the last few steps with the evolution of humans. It reflects on the period of hunting and gathering, agriculture and settlements, Industrial Revolution, movement of people off the land into cities and the technological revolution. It is an 'awe and wonder' experience for the students as they are invited to place themselves in the universe story.

The Cosmic Walk ritual can be situated in the ecological consciousness level of the schema as it focuses on the great story of the universe including the current state of the Earth. There was no discussion on the issues of the environmental crisis, just an acknowledgement that there is a depletion of the Earth due to human activity. This taped into the students' lived experience and whatever awareness they have that all is not well on the earth. This is revealed later in the interviews with the students because some students chose to study earth Spirituality because they were already alarmed by what they knew about the environmental crisis.

The Book of Job was presented The verses offered an amazing amount of Two lessons were given to reading

**5:** firstly for its literary genius as a story. The story of Job was briefly recounted and then an intense study of Chapters 38-40 followed as a witness to God's intimacy with the creatures of the natural world.

A wonderful imagery of the created world. A contribution to the 'awe' and 'wonder' of the natural world as God and Job go head to head about God's wisdom, generosity and care for every creature of the natural world. God's verbal assault on Job is relentless leaving no doubt that God is intensely interested and very much in touch with His creation.

and understanding the messages in the Book of Job to do with the rest of the natural world. Such questions as "Did you teach the eagle how to fly?" In the schema these insights fit within the learning for spiritual ecological consciousness especially as the recurring theme in Ch 38 & 39 is God's wisdom about all things created.

**6. Show PowerPoint presentation on the indigenous cultures' attitudes to creation through the words attributed to Chief Seattle.**

This introduced the concept of Earth as mother. That the land does not belong to any human person or tribe and therefore cannot be bought or sold. As Chief Seattle argues, whatever we do to the Earth we do to ourselves. This message connects all that has been taught to this point. The words accredited to Chief Seattle provided a reflective meditation on valuing the Earth for itself, as living, and as a manifestation of the generosity of the Great Spirit – God. It also highlighted the dominance of human beings through reflecting on the needless destruction of creatures such as the buffalo, just because we can, or for sport.

A lesson was given over to reflecting on the words of Chief Seattle. This was presented as a meditation in the College chapel because I wanted to include elements of the sacred, Earth as spiritual. It could be included in the schema as part of the experience of Earth Spirituality through reliving what the land and its creatures meant to the indigenous people of America.



**7. Explore the interconnectedness and interdependence of all creatures**

PowerPoint presentation on ecosystems and how dependent each is on the other.

Interconnectedness and interdependence of all creatures on the Earth was introduced to illustrate our total dependence on the natural world. Soil, air, water, plants, animals, insects, humans and bacteria intimately connected and dependent on each other for survival within a multiplicity of ecosystems. All creatures as members of the Earth community of beings were explored. Earth spirituality religious education begins with the understanding that all creation is a fragile web of life and humans are in a dependent relationship with it.

The link with the ascending schema is ecological consciousness and follows on from the lessons learned from Chief Seattle about the interconnectedness of all creation. For some students who have not engaged in environmental studies this was a new way of viewing the creatures of the Earth. This then lead into a discussion on our responsibility to keep all ecosystems in a healthy state as they were created or evolved.

**8: Discuss the articles relating to the environment in the Catechism of the Church**

PowerPoint presentation on the relevant articles of the Catechism of the Church. After a discussion on the role of the Church in relation to ecology, students were directed to the Catholic Conservation Centre and Catholic Earthcare Australia websites to do their own research on the Catholic tradition in relation to creation stewardship and creation theology.

The theology relating to attitudes and care of the environment contained in the Catechism of the Catholic Church placed ecology firmly within the Catholic tradition as a matter of faith and that Catholics are obligated to be proactive in the care of the Earth and all its creatures for their own well-being.

God wills the interdependence of creatures, the sun and the moon, the cedar and the little flower, the eagle and the sparrow: the spectacle of their countless diversities and inequalities tells us that no creature is self-sufficient. Creatures exist only in dependence on each other, to complete each other, in the

service of each other. (Article, 340).

**9: Evaluate the important role of Pope John Paul II as leader of environmental renewal.** A power point on the life and teachings of Pope John Paul II as head of the Catholic Church responsible for galvanising the people to stewardship of the Earth was presented. Pertinent quotes from the writings and speeches of Pope John Paul II were examined for their contribution to understanding a pathway to ecological conversion.

Four periods were required to look at some of the writings of PJP and to discuss what that means for members of the Catholic tradition. This study firmly placed stewardship of the Earth as part of the responsibility of a Catholic. Because PJP writes about ecological conversion it links to ecological conversion in the schema. It also linked their learning about other religious traditions responsibility for the health of the Earth.

**10: Understand and Aboriginal traditions of relationship with the Earth** A Buddhist monk and an Indigenous woman were invited to share their traditions Earth spirituality with the students.

The talks introduced other dimensions of Earth spirituality such as all creatures are spiritual beings to be valued in themselves and again it removed an appreciation and love of the natural world from just a Christian or Catholic expectation to a more universal spirituality of the Earth. Both traditions presented powerful images of the spirits of the community of beings and their tradition's reverence for all creatures.

Three lessons, that is, one lesson for the Buddhist monk and one lesson for the indigenous woman to share their experiences and beliefs about Earth Spirituality. These speakers had an important influence on the students who were very appreciative of their points of view. Their stories linked beautifully with the Earth Spirituality of the



ascending schema which confirmed for me that understanding and appreciating multiple beliefs and experiences of the Earth can enhance progress towards spiritual ecological consciousness towards ecological conversion.

**11: Investigate the plight of the Murray-Darling Basin (a river system in South-East Australia)**

Study of the Australian Bishops Document: The Gift of Water

Ritual: Journey of a River

This document brought Earth spirituality to Earth, to where they live. The document gave an overall account of the state of our water system – the Murray-Darling Basin. It highlighted the reality of concern and care for our waterways, not just as the responsibility of water boards or governments, but the responsibility of all those who live near and depend on the health of the rivers. The document also offered scriptural references and church teaching that informed the students on their relationship with God’s creation from a local perspective.

The Journey of a River is a beautiful ritual that tells the story of the importance of a river as life giving for so many creatures. At intervals in the ritual a student empties the contents of a bottle into a bowl of water. The contents represents pollution from farms, tourists and townships including sewage, factory

In order to return to the Catholic perspective and get in touch with a local environmental issue the plight of the Murray-Darling Basin was investigated through a Catholic Earthcare Document. As a link to the schema, the document refers to spiritual ecological consciousness because whilst appreciating the state of the water system it also acknowledges that it is God’s will that the river system be restored to its former glory as an ecosystem.

chemicals, all manner of waste materials, salinity, storm water and acid rain. It also includes water drawn off the waterway for agriculture, livestock, human consumption and all manner of impediments to a healthy ecosystem for the creatures dependent on the river. It highlights the influence of human activity of the health of the river systems.

**12. Show understanding of Jesus in the Cosmic Story**

PowerPoint presentation on Jesus the Cosmic Christ

Jesus, the Cosmic Christ, placed the Christian story within the universe story. This involved studies of the historical Jesus from the biblical scriptures particularly how he related to the natural world and the redemption of all creation. Cosmic Christology is about Jesus, the first born of all creation, created of the same elements of the universe, one with all creation. Jesus, as the most eloquent expression of God's at-oneness with all creation, for God who is pure spirit became a creature of the Earth.

Two lessons were given to the topic of Jesus as the Cosmic Christ. This study is linked to the schema as necessary for the development of spiritual ecological consciousness as it places Jesus, Son of God, in the universe story.

**13: Explore Earth Spirituality**

Discuss Earth spirituality combining the many expressions experienced during the lessons. PowerPoint presentation on the

Earth Spirituality informed ecological consciousness as a pathway to ecological conversion. It discussed the natural world and humans as spiritual and therefore spiritually connected to the Earth. God, the Great Spirit

Three lessons were required to link all the learning experiences into a comprehensive understanding of Earth Spirituality as an important appreciation of the natural world

life of St Francis of Assisi.

Meditation: Earth Spirituality

is intimately involved with all of creation. The focus was on realising that they themselves are spiritual and the Earth as spiritual.

The life of St Francis as Patron Saint of Ecology was presented to illustrate that appreciating relatedness to all creation has been in the Catholic tradition since the 13<sup>th</sup> Century but one that has been largely ignored.

For a meditation on earth spirituality the students were taken into the Peace Gardens at the College to feel the wind and listen to the sounds of the natural world.

within the schema for renewal of God's Earth.

**14: Demonstrate an understanding of ecological consciousness** Students discuss their understanding of what it means to be ecological conscious and how this is demonstrated in their lives.

Viewing of the Film: Pocahontas

Ecological consciousness leading to ecological conversion was the call to commitment and action, to be pro-active and prepared to make a personal contribution to addressing the demise of the Earth. The emphasis was on a paradigm shift from a consumerist mentality to one of looking at the Earth with loving eyes and a willingness to make an individual choice to walk lightly on the Earth for the sake of the Earth itself. The consequences of this mind shift will reverberate with the commitment of others in the global community.

Pocahontas was viewed over three periods as a way of making connections between how different people perceive the Earth, that is, to exploit or to simply appreciate. In the following discussion, the viewing of the film, brought together the importance of being ecologically conscious when issues in the community arise that may deplete the Earth further. It presented a challenge to engage in environmental issues in a pro-active

The viewing of Pocahontas was a gentle way

of providing a comparison between the developed world and the Indigenous way of being ecological consciousness.

**15: Demonstrate an understanding of what is meant by spiritual in relation to the Earth and ecologically conscious.**

Students discuss their understanding of what it means to be spiritually ecological conscious and how this may influence their lives.

Meditation: Sounds of the Sea

Spiritual ecological consciousness brings all the above together uniting the need to be ecologically conscious not for sustainability but rather in response to the call to be good stewards of the Earth because it belongs to God. The natural world as created by God, blessed by God with a right to life and a healthy future.

Students were required to listen to sounds of the sea as a background to a meditation presented on the earth as needing us to be faithful to stewardship of the earth because it firstly belongs to God and it needs us to speak for it.

Three lessons were set aside to reflect on spiritual ecological consciousness and to experience feelings for the Earth because of its amazing journey of 15 billion years and our part in the story now is to be sensitive to the needs of the earth. It links with the development of spiritual ecological consciousness in the schema.

**16: Demonstrate an understanding of Ecological conversion.**

PowerPoint presentation on the call to an ecological conversion. The powerpoint presents the call to an ecological conversion not only from Pope John Paul but from many other concerned people such as scientists and the

The link with the schema is spiritual ecological consciousness towards ecological conversion.

<p>creatures of the Earth.</p>	<p>An important role in ecological conversion is to tell the great story of the universe and God’s immersion in the great work of creation.</p>
<p><b>17: Responding to the challenge of an ecological vocation</b></p> <p>Discussion of lifestyle changes and how each may be pro-active in their lives now and in the future. What difference will teaching and learning about Earth spirituality make to their lives?</p> <p>Meditation on Commitment</p>	<p>Teaching and learning for Earth spirituality presented a challenge to the students to make a difference in the world by embracing a lifestyle that reflects their new understanding of right relations with all creation, that is, to respect all the creatures of the Earth that includes air, water, soil and biodiversity. It also presented a challenge to be active environmentally and politically, to be a voice for the voiceless.</p> <p>The link with the schema is spiritual ecological consciousness. The closing lessons of the unit of study offered an opportunity for students to make a commitment from their new understanding of their role in stewardship of the Earth. This was a communal exercise during a meditation on commitment to viewing the Earth and their place in the continuing story differently.</p>

Table 3.2.: Overview of the Earth Spirituality Curriculum.

The sequential learning beginning with the story of the universe to initiate ‘awe and wonder’ and concluding with the call to an ecological vocation was inspired by studies of the global environmental crisis and Pope John Paul II’s call to an ecological conversion as presented in Chapter One. The themes in the curriculum supported the ascending schema for coming to spiritual ecological consciousness towards ecological conversion. The students who experienced the *Earth Spirituality* teaching and learning were invited to be interviewed for the research data presented in Chapter Seven.

## Summary

This chapter has addressed three dimensions, that is, Pope John Paul II’s call to an ecological conversion, education for an ecological conversion, and units of study namely *Creation Theology* and *Earth Spirituality* that inform the context of the study. The context is multilayered and provides a backdrop for the research questions by reflecting on the response of Catholic teaching in relation to the environmental crisis and the way in which senior secondary students in a Catholic school value their education regarding their relationship with nature and role as stewards of creation. After reviewing the literature in chapter Two, it can be gleaned that a different perspective on attitudes to nature and subsequently the environmental crisis can be influenced by education. It was thought that once youth are educated about their connectedness to nature, their interrelatedness and their interdependence on creation then they are more likely to care for the Earth. The researcher’s own journey provided an example of a paradigm shift from simple awareness to engagement with the natural world which prompted a personal ecological conversion and consequently the decision to teach students about ecological conversion in response to Pope John Paul II’s mandate for religious education teachers.

The studies of *Creation Theology* and *Earth Spirituality* illustrate a process of learning that can enable students to know about their true place in the universe story and

ultimately their important role in caring for the Earth. The students were invited to reflect on their beginnings, their role as Catholics as nurturers of the natural world as a matter of faith. In the light of the three dimensions and given the purpose of the research, which was to explore students' experience of participating in units of study that addressed spiritual ecological consciousness towards ecological conversion, a hermeneutical/phenomenology methodology was deemed most suitable for the research.

## **CHAPTER FOUR**

### **INTERPRETING THE STORY**

#### **Introduction**

In the opening chapter of this thesis, I presented a sequence of scholarly discussions regarding the global environmental crisis that argued that the crisis is largely due to a spiritual and moral crisis due to alienation from the natural world. To counter this crisis, Pope John Paul II, as leader of the Catholic tradition, called his people to an ecological conversion and charged teachers with the responsibility to educate young people for a ‘change of heart’ regarding their relationship with the natural world. This thesis explores the experience of secondary school students who participated in studies relating to the process of spiritual ecological consciousness towards ecological conversion. To assist with the exploration, two research questions were formulated supported by three sub-questions. The literature review presented a schema for explicating themes that provided a framework to explore the research questions. Chapter Three provided a context for the study: the response of the Catholic Church to the global environmental crisis, current initiatives for education for the environment, senior secondary students and spirituality, education for ecological conversion and the experience of teaching for spiritual ecological consciousness towards ecological conversion.

In this chapter, I will discuss the methodology and research methods considered most suitable for the exploration of the research questions. As this research involved me as both teacher of *Earth Spirituality* and *Creation Theology* and the researcher, a brief discussion of the pedagogical-epistemological framework informing the teaching and learning process for the unit is discussed. The methodology for this study, hermeneutic phenomenology, is discussed both theoretically and in terms of the process used for information gathering and analysis. The chapter concludes with a discussion of the issues regarding academic rigour and addresses the ethical considerations for this study.



## **Epistemological Framework**

Epistemology is defined by Crotty (1998) as ‘the theory of knowledge embedded in the theoretical perspective and thereby in the methodology’ (p. 3). The epistemological stance taken by the research therefore, provides a ‘corridor’ for knowledge development, which is relevant and legitimate for advancing a designated knowledge field in a particular or chosen manner, that is, in this research, the teaching and learning towards ecological conversion. Wagner (1993) argues that the process of inquiry, in pursuit of knowledge, can be best achieved if one views the teaching and learning process as a path of discovery with the intent of reducing ignorance rather than pursuing truth. Crotty (1998) allows for interpretation, that is, it is not concerned with seeking the truth but rather exploring human beings’ perceptions and understandings of what it means to be human within the context of everyday life. Such a process provided consistency to the teaching and learning of the units of study given the epistemological approach for this research.

### **Interpretivism**

Crotty (1998) describes interpretivism as the nexus of meaning expressed in the situated interpretation of the social life-world. Therefore, it was important to study the personal and individual reasons or motives that formed “a person’s internal feelings and guide decisions to act in particular ways” (Neumen, 2000, p. 70). Neumen (2000) contends that interpretivism is grounded in an “empathetic understanding” (p. 70) of the daily lived experience of people in their time and place. Sarantakos (1998) posits that the reality of lived experience is how people perceive, experience and interpret it. Therefore, a person’s reality is socially constructed through interaction and interpretation and so is based on the definition people ascribe to it. Sarantakos (1998) also argues that what is significant is not the social actions that are being observed, but more importantly, the meaning attached to it from a subjective perspective.

In relation to appreciating teaching outcomes, Rossiter (2001) contends that hermeneutical interpretation has been valuable for teachers in the process of explicating understanding of the students' ways of coming to know their lived world, especially in respect of religious education, such as the development of spiritual ecological consciousness. Lombaerts (2002) supports the importance of understanding students' appropriation or reception of the world around them because it is within this context that their religious beliefs and commitments are defined and affirmed. From an educative perspective, "hermeneutics of appropriation" (p. 3) is much more influential than "hermeneutics of transmission" (p. 3). Therefore, consistent with an epistemological-pedagogical approach to the teaching and learning of the units of study namely, *Creation Theology* and *Earth Spirituality* a hermeneutic-phenomenological approach to inquiry underpins the methodology to this research as a means of explicating the experience of the participants.

## **Research Methodology**

Understanding lived experience lends itself to qualitative inquiry. According to Denzin and Lincoln (1994), qualitative inquiry concentrates on the process and meanings inherent in human experience. Researchers using a qualitative method of inquiry emphasise the socially constructed nature of reality, especially the close relationship between the researcher and the phenomenon under study. They are particularly attentive to the situational constraints that influence the inquiry. Sarantakos (1998) supports Denzin and Lincoln by suggesting that qualitative research has distinctive characteristics. It is responsive to the needs of the research participants, the methods employed by the researcher, the research site, and other variables that shape the research. Another important consideration in qualitative inquiry is the analysis process where every symbol or meaning is painstakingly considered as a reflection of the context in which they originated. There is also the expectation to explain clearly and accurately the research process and how the research itself will be arranged and organised. In qualitative inquiry, these fundamental considerations provide a guiding framework for informing the research process. The research approach to inquiry utilised for this study was hermeneutic phenomenology. I have chosen to briefly examine each

methodology separately to uncover each modes valuable contribution before combining them as they are utilised in interpretation of the research data.

### **Hermeneutics as a Mode of Inquiry**

As a qualitative research methodology, Heideggerian phenomenology is more concerned with understanding and interpreting human experience than describing it. Such interpretation is termed ‘hermeneutics’ (Heidegger, 1962/1967). The term hermeneutics is derived from the Greek verb *hermeneucin*, meaning to interpret or bringing to understanding, particularly where the process involves language and there is a possibility of misunderstanding (van Manen, 1990). Lombaerts (2000) explains that hermeneutics is about the comprehension of meaning and significance of words as text and how they create meaning for people. Palmer (1969) argues that hermeneutics is that foundation required for understanding the nature of being in the life-world and therefore, “hermeneutics becomes an ontology” (p. 130) of meaning and elucidation . Crotty (1998), with reference to the works of Heidegger (1927/1962), suggests that hermeneutics is the enlightening aspect of ‘phenomenological seeing’ (p. 96). It allows for an affinity, fellow feeling, empathy, and kinship between that which is being interpreted and the interpreter; a common thread that provides a foundation for the interpretation that is to materialise in the research data (Crotty, 1998). Hermeneutics is also a sharing of meaning in a text situated within history and culture where interpretation of texts can be more insightful than the author’s own intentions (Crotty, 1998). Rundell (1995) affirms the place of hermeneutics in human experience stating:

It has now become a commonplace to say that ‘we all interpret’... Hermeneutics – the critical theory of interpretation – is the only current in western thought that has made this issue its own...Through hermeneutics, interpretation has become part of our cultural self-understanding that only as historically and culturally located beings can we articulate ourselves in relation to others and the world in general (p. 10).

In other words, humans generally are hermeneutically literate. Humans are constantly interpreting phenomena as it presents itself within their lived experience.

### Phenomenology as a mode of inquiry

Phenomenology as an approach allows what is hidden or concealed to be revealed. It resists applying a structure for understanding but rather, it tries to let the research present itself. Palmer (1988) in giving an historical account of Heidegger's definition of phenomenology says that:

Heidegger goes back to the Greek roots of the word: *phenomenon* or *phainesthai*, and *logos*. *Phainomenon*, Heidegger tells us, means 'that which shows itself, the manifested, revealed [*das Offenbare*]'. The *pha* is akin to the Greek *phos*, meaning light or brightness, 'that in which something can become manifest, can become visible ... ' Phenomena, then, are 'the collection of what is open to the light of day, or can be brought to light, what the Greeks identified simply with *ta onta*, *das Seiende*, what is' (p. 1270).

Phenomenology, argues Heidegger (1980), is the '*science of phenomena*' (p. 50). Van Manen (2000) agrees with Heidegger adding that phenomenology is an intensely reflective inquiry into human meaning. It is the study of phenomena, "the ways things appear to us in experience or consciousness" (p. 9) that is, "to the things themselves" (p. 9) or that which really matters to understanding. Van Manen (1990) reiterates that phenomenology describes immediate experience without obstruction, assumptions, pre-conceptions or theoretical ideas and it endeavours to elucidate their meanings as they are lived out in the course of a day or over a period of time in the life-world of experience (van Manen, 1990). In this sense, phenomenological research is a scientific study as it is a systematic and methodical study of the phenomenon of day-by-day living in the world. It seeks *scientia*, which means to know through thoughtfulness, being attentive to, mindful, reflective, caring, heeding and sensitivity about the business of life, of being part of the living world, or to become more fully aware of our existence as people who share a common experience. For van Manen (1990), such phenomenological research is the study of lived experience or the life-world.

As a philosophy, phenomenology presents an approach to the world via an understanding of human experience as it is lived in an ordinary setting (Merleau-Ponty, 1962). Phenomenology asks the question “What is this or that kind of experience like?” (van Manen, 1990, p. 9). The central tenet of an experience is its intentionality, that is, an inseparable connection to the world. In this research, it is the students’ sense of understanding, of appreciating the significance of their life-world experiences, and being able to verbalise their deepest humanness in their connectedness to all creation in a spiritual way that is *sciential*. Van Manen (1990) refers to this phenomenon as a poetising activity when he argues that it is “*in the words, or perhaps better, in spite of the words, we find ‘memories’ that paradoxically we never thought or felt before*” (p. 13).

### **Hermeneutic Phenomenology as the Chosen Mode of Inquiry for the Research**

Hermeneutic phenomenology quite naturally combines the two interpretative methodologies that are elaborated on in the works of Heidegger (Crotty, 1998; Sharkey, 2001). Van Manen (1990) posits the view that hermeneutic phenomenology is a human science which studies persons. Hermeneutic phenomenology is a method of enquiry through which the researcher can effectively channel the research findings. Sharkey (2001) argues that hermeneutic phenomenology challenges the researcher to consider intensely what it is that the texts of a particular phenomenon have to say. This does not necessarily mean that a text or life experience can have many meanings or that everyone is qualified to interpret them. Undertaking hermeneutic phenomenological inquiry takes time. It is a sensitive journey into the life-world of the other, into the deepest expressions and conversations on what it is to be human (Hyde, 2005). Van Manen (1998) argues that:

Hermeneutic phenomenology tries to be attentive to both terms of its methodology: it is a *descriptive* (phenomenological) methodology because it wants to be attentive to how things appear, it wants to let things speak for themselves; it is an *interpretive* (hermeneutic) methodology because it claims that there is no such thing as uninterpreted phenomena (p. 180).

According to van Manen (1990), hermeneutics and phenomenology are deeply drawn on in all the human and social sciences that “interpret meaningful expressions of the active inner, cognitive, or spiritual life of human beings in social, historical or political contexts” (p. 181). Van Manen (1990) maintains that hermeneutic phenomenological research seeks to acquire insights into lived experience of the world “pre-reflectively, without taxonomizing, classifying, or abstracting it” (p. 9). According to Crotty (1998), the interpretative paradigm in the form of hermeneutic phenomenology has enabled a specific approach to research providing a conceptual lens for the procedure of authenticating and enhancing meaning as constructed by the individual engaged in daily living. After consideration of this understanding of hermeneutic phenomenology, this study adopted such an approach as a means of gaining an in-depth insightful understanding into the experience of students who participated in studies that focused on developing a sense of spiritual ecological consciousness towards ecological conversion.

### **The nature of the lived experience**

Chapter Five is an autoethnographic account of the lived experience of the teacher/researcher for this research and thus understanding the nature of ‘lived experience’ is important for this study. The notion of lived experience is examined because lived experience extends over a period of many years. Chapters Six and Seven present the ‘experience’ of students who studied *Creation Theology* or *Earth Spirituality* because the student experience was short lived, over six weeks or six months. However, for the purpose of this thesis, the nature, purpose and significance of lived experience as outlined by van Manen (1990) is drawn upon to explicate the experience of the students.

According to van Manen (1990), the exegesis of a person’s lived experience or lived meaning offers a commentary on the way a person experiences and understands his or her world as truth, as real, and offers meaning for that person. Dilthey (1985) suggests that lived experience involves a consciousness, an awareness of the experience. It addresses the person's perceptions and attributed meanings gleaned from his or her every day. To be able to articulate an experience depends on the awareness that an individual has constructed in terms

of personal meaning from what he or she has learned and made their own. As Dilthey (1985) explains, “ lived experience does not confront me as something perceived or represented; it is not given to me, but the reality of lived experience is there-for-me because I have a reflexive awareness of it, because I possess it immediately as belonging to me in some sense. Only in thought does it become objective” (p. 223). Therefore, this study was undertaken to understand better the experience of moving from environmental awareness to ecological conversion. This hermeneutical/phenomenological study, based on the work of van Manen (1997), was guided by the research questions that sought to understand the students’ experience as well as the lived experience of the teacher/researcher.

### **Research Methods Informing this Study**

This section will discuss the methods used to conduct this hermeneutic phenomenological study as articulated by van Manen (1990). These are an autoethnographic account of the researcher’s lived experience of spiritual ecological consciousness towards ecological conversion and secondly, interviews with the student participants of the taught units to elucidate their experience. Figure 4:1 Flowchart of the process for Data Gathering Methods: in-depth interviews and autoethnography.

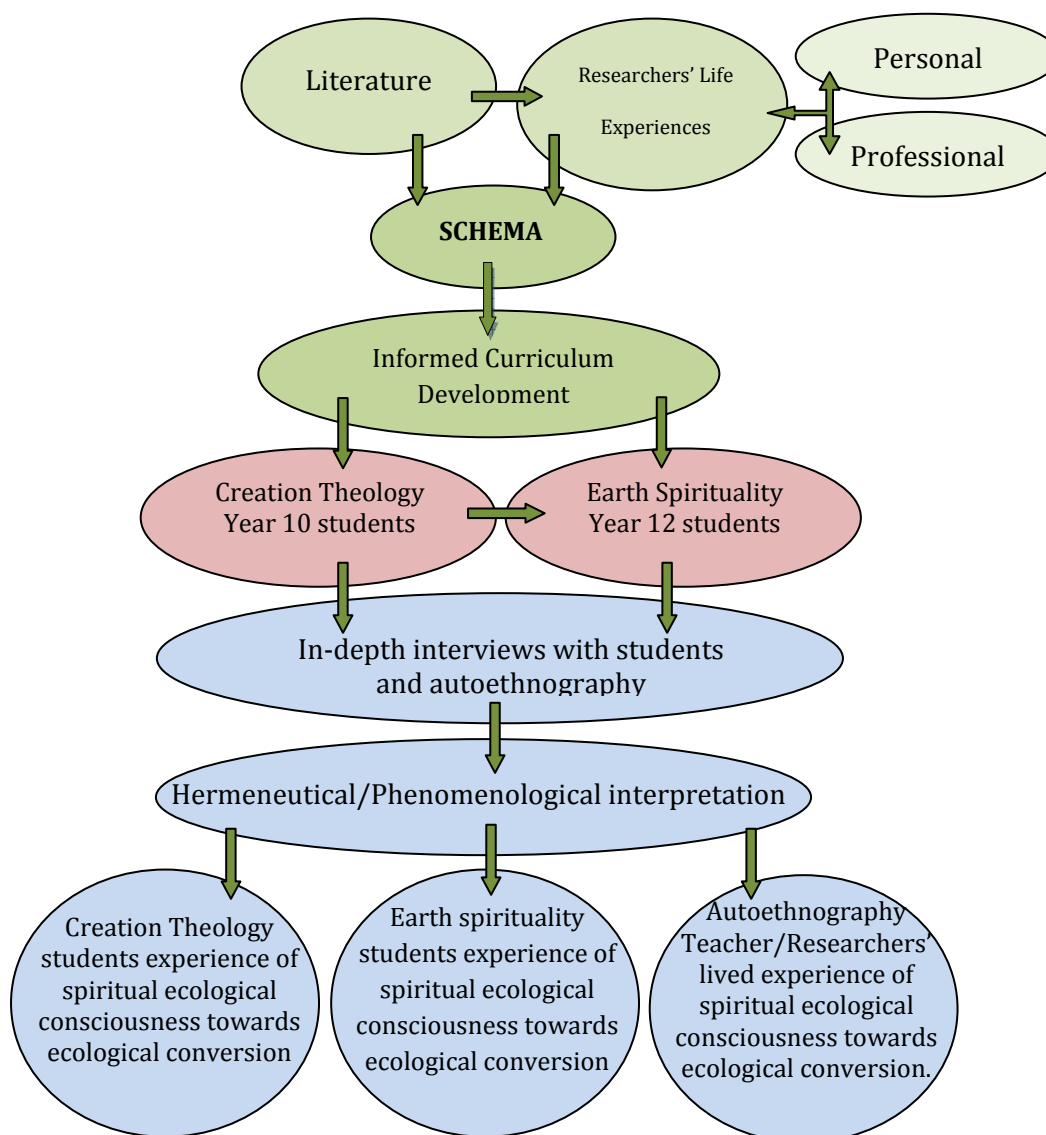


Figure 4:1 Flowchart of the process for Data Gathering Methods: in-depth interviews and autoethnography.

### Autoethnography

On reflection, I realised that the themes of the research were deeply imbedded in my psyche and that they could be traced to an accumulation of experience, learning and growing concern about environmental education. My own journey influenced my pedagogy; therefore, I sought a methodology that would allow me to share my experiences.



Autoethnography seemed to offer a medium for this purpose as my self-reflexivity encompasses and expresses Ellis's (1999) definition of autoethnography. According to Ellis (1999):

Auto-ethnography is an autobiographical genre of writing and research that displays multiple layers of consciousness. Back and forth auto-ethnographers gaze, first through a wide-angle lens, focusing outward on social and cultural aspects of their personal experience; then they look inward, exposing a vulnerable self that is moved by and may move through, refract and resist cultural interpretations. Concrete actions, dialogue, emotion, embodiment, spirituality, and self-consciousness are featured, appearing as relational and institutional stories impacted by history, and social structure, which themselves are dialectally revealed through actions, feelings, thoughts and language (p. 673).

Autoethnography, as a recognised qualitative social research method where the researcher documents her or his own experience as it relates to social history, offered me an opportunity to tell my story (see also, Denzin & Lincoln, 2001; Ellis & Bochner, 2000; Holt, 2003). This genre suited my self-reflexivity for sharing my lived experience of coming to spiritual ecological consciousness and teaching for ecological conversion. As Ellis and Bochner (2000) argue, the researcher's own experience becomes the object of investigation when the researcher is absolutely committed to and deeply immersed in the phenomena being studied. According to Richardson (2003), the one who carries out the research is not detached from the lived self, and therefore, can contribute to an explication in human inquiry. My personal experience, then, becomes a focal point of investigation and further reveals the phenomena under study (Ellis & Bochner, 2000). This auto-ethnographic account is based on my reflections, recollections, important shifts in pedagogy, and insights which occurred during the research process (Duarte, 2007; Ellis & Bochner, 2000).

This study adopted a qualitative approach to increase understanding of the lived experience of the transition from environmental awareness of the global environmental crisis to ecological conversion. The autoethnographic account is twofold. Firstly, it is the story of my own journey of coming to spiritual ecological consciousness towards ecological conversion. Secondly, it illuminates my journey as a teacher of students experiencing units of study that focused on ecological conversion. During the research process for this thesis, I

realised that I was drawing on my own experience of coming to grips with the environmental crisis. I found myself reflecting on my own life journey as I became aware of the murmurings of an environmental crisis through the media, especially the loss of biodiversity campaigns. Environmental actions were becoming a common call to awareness of the vulnerability of the world around me.

According to Reed-Danahay (1997), auto-ethnographers can differ in their emphasis of 'auto', that is self, 'ethnos' meaning culture and 'graphy', which refers to the research process. There are two crucial issues relating to auto-ethnography as a research method and they are representation and legitimation (Denzin & Lincoln, 2000; Holt, 2003). The problem of representation has to do with the writing practice itself while issues of legitimation are expressed in rethinking such terms as validity, reliability, rigor and objectivity due to the use of self as a data source, even though auto-ethnography can be a valuable way of scrutinising ones pedagogy in a self-reflexive manner (Holt, 2003). Ellis (1995) argued that a manuscript could be considered valid if it inspired or drew forth feelings in the reader that the experience was authentic, believable, and possible.

Autoethnography as a research method posed a pertinent question that shed light on its validity. According to Holt (2003), the question requires self-reflexivity that needs to be evident in the manuscript:

- Is the research question significant, and is the work original and important?

This autoethnographic writing is based on my reflections and recollections of significant experiences that prompted movements in my consciousness as they occurred during my personal journey of self-discovery of connectedness to the creation story and therefore, it is original. It also endeavoured to recount shifts of consciousness in relation to new pedagogical knowledge and skills. Also it could be considered important because the insights gleaned from reflecting on my teaching philosophy and practice played a critical role in positioning revised pedagogy in order to offer students an opportunity to engage with creation theology

and earth spirituality so that my research would be significant, original and important. The autoethnographic writing illuminated the journey of the researcher towards a meaningful understanding of ecological-self that is applicable to others who desire to come to a true ecological conversion required to stimulate and sustain an environmental conscious evolution and an environmental revolution required to address the environmental crisis issues and turn climate change around.

Van Manen (1990) argues that ethnography is imbued with the culture of the author and the sharing of every day happenings that influence the experience of teaching and learning. It is a genre of writing that reflects the different and unique ways that the researcher responds to and interacts with and within the culture being researched. Holt (2003) argues that an autoethnography endeavours to tell the story of what it was like for the researcher, that is, reflecting on one's own practice, one's own experience, self as a data source, can provide added value to understanding the research data. Generating an ethnographic account of the experience of teaching and learning about spiritual ecological consciousness was a useful tool for "examining my teaching experience in a self-reflexive manner" (Holt, 2003, p. 6). The notes on my teaching of the units made a contribution to my autoethnography and have been invaluable as my teaching for ecological conversion has continued each year in different classes and community groups such as church groups and university students intending to become teachers themselves. I also have futuristic plans for the experience that I have gained in teaching for ecological conversion.

### **Student Research: Participant selection**

Potential participants who met the following inclusion criteria were invited to be part of this study. The inclusion criteria were students in my religious education classes at Catholic Secondary College in central Victoria.

1. Group One: Consisted of Year 10 students who had studied a six week topic on *Creation Theology*.

2. Group Two: Were Year 12 students who had studied a semester unit on *Earth Spirituality*.

It was anticipated that seven or eight participants would be needed to obtain meaningful data from the *Creation Theology* cohort and eight to ten participants from the *Earth Spirituality* cohort. After completion of the teaching and assessments, letters of invitation were sent out to all the class members. From Group One, seven students in a class of 22 replied and committed themselves to be interviewed. From Group Two, ten students in a class of 15 agreed to be interviewed for my research. Upon receipt of their signed intention to participate in my research, I contacted each student personally and arranged a time for an interview. As the classroom was familiar to the participants, it was their choice of venue to conduct the interviews. Potential participants were not invited to be part of this study until completion of the unit assessment to ensure that there was no interference to the normal teaching and learning process for the conduct of this unit and to avoid any specific preparation on their part. Although the respondents were not the most confident speakers in the class, they reported that they were delighted to share their experiences with me.

I also acknowledge that the researcher and the researched formed a relationship consistent with expectations and experience of teachers and pupils. This relationship varied from student to student. Although the unit of study was an elective within the Religious Education curriculum at the College, students chose to study it for different reasons, even for such a simple reason as the subject fitted a student's timetable. However, experience as a teacher prepared me for the importance of nurturing a congenial working relationship with all my students in order to develop a rapport with them, especially since I was going to invite them to participate in my research. I also realised that youth may find it difficult to express their beliefs or share their feelings and their experience of spiritual ecological consciousness towards ecological conversion.

### **Semi-structured interviews**

Semi-structured interviews is a method of research used in the social sciences. In comparison with structured interviews, which have a formalised but limited set of questions, a semi-structured interview is flexible, allowing new questions to be brought up during the interview as a result of the direction of the interview. Using semi-structured interviews allowed the researcher to glean the experiences as the students perceived them. It also allowed for flexibility in the way questions were framed depending on the participants' responses (van Manen, 1990). The in depth semi- interviews were audio taped with the participants' permission and subsequently transcribed. The responses to the questions and/or shared dialogue provided the raw data to explore the students' experience of spiritual ecological consciousness towards ecological conversion. Information was gathered through the following process.

Each participant was required to be involved in a tape-recorded interview which was conducted at an agreed time and place for the convenience of the student. Before commencing the interview, a time was set aside for general discussion to ascertain whether the participant felt comfortable about the interview process. A number of semi-structured questions had been prepared in order to assist the participants in sharing their experience. The students were also encouraged to share any individual insights from their reflections on their life-world and therefore the interviews seemed to take on a life of their own as my prepared questions seemed artificial or orchestrated and somewhat limiting compared to the students' own perceptions of their learning. The prepared interview questions are located as Appendix I. They were chosen with the various levels of the schema in mind even though at the time I had not formulated the process as a schema for ecological conversion. The hermeneutic/phenomenological approach allowed for this process even though, as the researcher, I had to keep conscious of the direction of the research. Hatch (2002) offers guidelines to improve the quality of interviews arguing that qualitative interviews are identified by the degree of respect and attention afforded the interviewee, therefore, normal courtesies were observed. However, regardless of the time they allowed me it was helpful to begin with polite conversation about themselves and their interests to relax the interviewee and to ensure that there was the important element of trust in the exchange of dialogue (Hatch, 2002).

## Data Analysis

In reporting the analysis and findings, each of the participants' stories is examined to discern the themes that begin to emerge that capture the significance of the text as a whole. Due to the shared experience of classroom learning and the interview questions, experiential themes recur as commonalities in the individual descriptions collected in the transcripts. The commonality of themes is uncovered and extracted from each of the participants' descriptions while accepting that no conceptual formulation or statement of interpretation can capture the fullness of the experience (van Manen, 1990)

As the teacher was also the researcher, I bracketed a word or words that I believe the student tried to share with me in the interview. Sometimes the participants' body language suggested the response of 'you know what I mean' since as their teacher we had shared so much together in the classroom and they felt I knew what it was that they were wanting to express. The bracketed word/words also help the reader to make sense of the transcripts, especially where I have bracketed plural comments when it is the response of an individual. Furthermore, I have endeavoured to be sensitive to the intended meaning of the words, and the context in which they were shared with me. For me, it was realistic that I made myself present as someone who has previously experienced engagement with the phenomenon of spiritual ecological consciousness, and who has been exposed to some of the kinds of experiences expressed by the participants in this research.

The process of analysis-synthesis was a three-layered approach involving extracting the participants' stories, explicating the themes from each participant and, synthesising the shared themes into a comprehensive description of the phenomenon under study. Van Manen (1990) outlines a process for conducting thematic data analysis from the interview data:

- Conduct the interviews.
- Transcribe the interviews verbatim.

- Read and re-read the transcript to totally submerge oneself in the text in order to identify and elucidate the essential themes relating to the lived experience.
- Isolate the ‘essence’ themes while remaining focused on the research question that prompted the interview in the first place.

The use of the term ‘*essence*’ is important for this research as the *essence* of the students’ lived experience has been sensitively discerned from their interviews. According to Husserl (1970b), it is essential to recognise the essence of an experience and Van Manen (1990) concurs in describing *essence* as ‘the whatness of things or that what makes a thing what it is’ (p. 177)

### **Synthesis of Shared Themes**

According to van Manen (1990), themes are the means by which we may make sense of the phenomenon under investigation, and enable an orientation whereby we may open to a ‘deepened and more reflective’ grasp of the phenomenon. Thus, van Manen held that ‘theme’ is “the process of insightful invention, discovery, disclosure” (p. 88). It is important to note that the themes which were informed by the schematic journey towards ecological conversion as presented in Chapter One and reviewed in Chapter Two, largely influenced by the questions that directed the interview.

In Chapters Six and Seven, I have arranged the students’ responses under common themes that explicate the students’ experience of spiritual ecological consciousness. I have discerned four major themes that encapsulate something of the *Creation Theology* students’ experience in Chapter Six and seven themes from the *Earth Spirituality* participants interviews. After reading and re-reading the transcripts of each participant’s story, a number of sub-themes or exemplars associated with the major themes began to emerge. Whilst not ignoring the role of the researcher whose questions guided the direction of the stories, much analysis was already present in the words of the participants from their previous lived experience of aspects of the phenomena of this research. This required description,

interpretation and self-reflective or critical analysis (van Manen, 1990). The experience was described or presented in language that makes sense to the reader who can glean what the experience means or was like for the student.

Analysis of the data was carried out using Van Manen's (1990) suggestions for producing a 'lived-experience' description but equally relevant for an exegesis of the students' 'experience' as they told their stories, see for example Appendix 2: Sample Interviews with *Creation Theology* students and Appendix 3: Sample Interviews with *Earth Spirituality* students.

- You need to describe the experience as you live[d] through it...
  - Describe the experience from the inside, as it were, almost like a state of mind: the feelings, the mood, the emotions.
  - Focus on a particular example or incident of the object of experience: describe specific events, an adventure, a happening, a particular experience.
  - Try to focus on an example of the experience which stands out for its vividness, or as it was the first time.
  - Attend to how the body feels, how things smell[ed], how they sound[ed].
  - Avoid trying to beautify your account with fancy phrases or flowery terminology.
- (p. 65).

The analysis of the research data gathered from the semi-structured interviews with students from the *Creation Theology* class and the *Earth Spirituality* class, the focus of Chapters Six and Seven, was explored in keeping with the sentiments of hermeneutical/phenomenological analysis as described by van Manen (1990). I was cognisant of the need to adhere to his research process that required:

- Turning to a phenomenon which seriously interests us and commits us to the world.
- Investigating experience as lived rather than as conceptualised.



- Reflecting on the essential themes which characterise the phenomenon.
- Describing the phenomenon through the art of writing and rewriting.
- Maintaining a strong and oriented pedagogical relation to the phenomenon.
- Balancing the research context by considering parts and whole (p. 31).

*Turning to the nature of lived experience* required a commitment to the phenomenon of ecological conversion that as a phenomenological research does not begin in a vacuum. The subjects of the research experience their life-worlds within a historical, social and individual/personal context. It is the task of the researcher to engage in a deep questioning of the context in order to interpret the nature of the experience. In this research, turning to the abiding concern about ecological conversion remained the focus for the duration of the teaching and data gathering.

*Investigating experience as we live it* is evident in this research as the researcher was aware throughout the teaching of *Creation Theology* and *Earth Spirituality* that the students were experiencing the phenomenon of ecological conversion even though it was not articulated. The interviews allowed for a revisitation, a reawakening of the original experience that was meaningful for them. The lived experience of the researcher, upon self-reflexivity, revealed a life-long process of coming to ecological conversion that became meaningful during the teaching for ecological conversion.

*Reflecting on essential themes* in the data required a thoughtful discernment of the particular experience in order to explicate the special significance of the experience. The themes reveal that which tends to be obscure, unnoticed, that which evades every day understanding of the experience. When reflecting on the teaching and learning for ecological conversion, as shared in the interviews, the themes render the experience intelligible and contribute towards an understanding of the nature of the experience.

*The art of writing and rewriting* is essential to phenomenological research. It is the act of bringing to speech and ultimately to writing that which is pertinent to exploring the

experience. Thinking, speech and writing are inseparable as they have the same root *logos*. The students were required, by the nature of the interviews, to spontaneously reflect on their experience of learning about ecological conversion and to verbalise their experience and so the verbalising of the experience can be an authentic account of the experience. In the auto-ethnographic writing, the authenticity comes from writing and rewriting a number of times one's *logos*, confined by the limitations of language yet able to communicate something special about the experience or, as Heidegger (1962) explains it, to just let the experience show itself as itself.

*Maintaining a strong and oriented relation* is paramount to an authentic qualitative research. It requires a fundamental orientation to the phenomenon of spiritual ecological consciousness towards ecological conversion. The hermeneutical/phenomenological interpretation of the interviews requires an extraordinary quality of insightfulness to discern the themes that express, as closely as possible, the *logos* and meaning intended by the participant.

*Balancing the research context by considering parts and whole* required a comprehensive understanding of the total context of the research beginning with the intention to pursue a particular research, understanding the influences emanating from the context of the research, reviewing the relevant literature, teaching for spiritual ecological consciousness towards ecological conversion, choosing a methodology, conducting the interviews, writing from one's experience, analysing the data and drawing conclusions about the research. Balancing the multi-layered parts and whole of the context in which this research is presented required a constant openness to the research question and an authentic interpretation of the phenomenon of ecological conversion as revealed in its parts. Each aspect of the context can contribute something towards understanding the 'whatness' of the phenomenon (van Manen, (1990). It is not the intention of van Manen (1990) to orchestrate a methodological structure of human science inquiry but to provide a guide for the human science researcher who is attentive to all the requirements for a reliable qualitative thesis on a phenomenon.

Throughout the information gathering and analysis procedures, the researcher engaged in deep reflection during the process of explicating core themes pertaining to the phenomenon under study: the lived experience of spiritual ecological consciousness. Van Manen (1990) considers that true reflection on lived experience is a thoughtful, reflective understanding of what it is that renders this or that particular experience its special significance. When a phenomenon is studied, the researcher is attempting to identify the themes that flow from the experience and what they mean in relation to the phenomenon. The themes emerge through the needfulness or desire on the part of the researcher to make sense of the experiences being explored.

Van Manen (1990) suggests that the explication or identification of themes provides a potent means by which an in-depth understanding of lived experience can be achieved. Van Manen (1990) describes a theme as ‘the experience of focus, of meaning, of point ... formulation is at best a simplification ... themes are transitive ... the form of capturing the phenomenon one tries to understand’ (p. 87). The use of themes as a form of analysis provides ‘a means to get at the notion ... a way to give shape to the shapeless ... and describes the content of a notion’ (p. 88). According to van Manen (1990), there are three approaches which can be used for isolating thematic statements. They are:

- The holistic or sententious approach.
- The selective or highlighting approach.
- The detailed or line-by-line approach (p. 93).

For the purposes of discovering and interpreting the experience of the participants in this study, the holistic or sententious approach is deemed most suitable for isolating the various themes embedded in the data. This approach examined phrases or sentences or part sentences of the interview transcript “to capture thematic statements in hermeneutical phenomenologically sensitive paragraphs” (van Manen, 1990, p. 95), which shed light on appreciating the experience of learning about spiritual ecological consciousness. Van Manen (1990) describes themes as ‘knots in the webs of our experiences, around which certain lived

experiences are spun and thus lived through as meaningful wholes' (p. 90). Each theme or 'knot', although isolated from the full text, is drawn together by the 'web', which provides a composition of the experience of the phenomenon (van Manen, 1990) as presented in the schema.

## **Other Considerations**

### **Ethical Considerations for the Research**

Prior to commencing this study, ethical approval was obtained from the Australian Catholic University Human Research Ethics Committee. As the participants were minors, written consent was required and received from the students. A written research proposal was submitted to Australian Catholic University Human Research Ethics Committee in Melbourne. Written approval was obtained in 2005.

The anonymity of the participants was guaranteed by several strategies. Firstly, there was no discussion of the research in the classroom to invite dialogue about student involvement. Secondly, the participants were invited to participate in my research through a personal invitation delivered through Australia Post. I was dependent on the letter of invitation to be self-explanatory. After receiving each participant's reply through the post, I made personal contact with the student on campus at an appropriate time. The student then agreed to meet with me and a pseudonym was used in place of the student's name.

### **Strengths of the Data**

Guba and Lincoln (1985) posit that trustworthiness of the information provided by the researcher and the findings of the study is fundamental to achieving rigour within qualitative research. Guba and Lincoln (1985) offer a general framework for assessing trustworthiness of qualitative research that consists of four dimensions: credibility, transferability,

dependability, and confirmability. Congruent to the methodology used in this research, Guba and Lincoln's (1985) framework for enhancing rigour was applied to this study.

Credibility was achieved by paying meticulous attention to ensuring the 'voices' of the participants remained audible in the study's findings. Careful attention was given to following the designated steps of the research process articulated by van Manen (1990). Part of this procedure included constant reflection on the participants' transcripts and ensuring that the emergent themes extrapolated from the participants' stories were an accurate representation of their experiences.

To ensure dependability, a full description of the research processes used in this hermeneutic phenomenological study has been provided including methodological issues pertaining to participant selection, accessing participants, information gathering and information analysis. Finally, reflections by the researcher concerning the conduct of this study, strengths/limitations of the study, the researcher's personal journey and conclusions and recommendations for future research have been provided.

Confirmability is the process of assessing trustworthiness of the research resulting from phenomenological inquiry. Guba and Lincoln (1985) explain that "confirmability means that the data [information] are linked to their sources for the reader to establish that the conclusion and interpretations arise directly from them" (p. 60). In order that the study may deliver findings that are true to the testimonies of the participants, I was continually aware of my biases and the various perspectives I brought to the interpretation of texts. I had previously taught the subject and reflected on my teaching and I was aware of my shortcomings in my pedagogy of the unit. All aspects relating to the research process for this study – philosophical framework, information gathering, information analysis, and ethical considerations in undertaking this study have been succinctly and clearly documented.

Richardson (2000) describes five factors when reviewing personal narratives that include analysis of both evaluative and constructive validity techniques as assessment criteria for an auto-ethnography. The criteria are:

a) *Substantive contribution.*

Does the piece contribute to our understanding of social life?

b) *Aesthetic merit.*

Does this piece succeed aesthetically? Is the text artistically shaped, satisfyingly complex and not boring?

c) *Reflexivity.*

How did the author come to write this text? How has the author's subjectivity been both a producer and a product of this text?

d) *Impactfulness.*

Does this affect me emotionally and/or intellectually? Does it generate new questions or move me to action?

e) *Expresses a reality.*

Does this text embody a fleshed out sense of lived experience (p. 15-16)?

Throughout the teaching and learning, as well as the interview process, I was constantly examining my own thoughts and practice from the point of view of researching my own lived experience. I began with my experience, my expectations, my observations, my attentiveness to students' comments and responses culminating in an intently unambiguously subjective account of the journey (Russell, 1999). Coffey (1999) argues that because it is a subjective account, it is at risk of being criticised as narcissistic or self-indulgent, and therefore, can lack academic rigour. However, this crisis of legitimation of an autoethnography simply presents a challenge to rethink traditional criteria for assessing the validity, objectivity and reliability in the case of an interpretive, qualitative research (Holt, 2003). My autoethnography provides the research data presented in Chapter Five.

## **Summary**

This chapter provided a contextual understanding of the researcher's choice of taking a particular philosophical position for this study. As this research involved me as both a teacher and researcher, a brief discussion of the pedagogical-epistemological framework informing the teaching and learning process for the unit was provided. A description of the central elements of hermeneutic/phenomenological methodology was presented followed by a discussion of the particular research methods employed in the process of information gathering and analysis accessing van Manen's (1990) hermeneutic phenomenological approach to inquiry. The chapter concluded with a discussion of the issues pertaining to maintaining rigour and addressing ethical considerations for this study. Chapters Five, Six and Seven present the research data applicable to this study.

## **CHAPTER FIVE**

### **TELLING MY STORY**

#### **Introduction**

My own lived experience of spiritual ecological consciousness towards ecological conversion and as a teacher of students for spiritual ecological consciousness towards ecological conversion forms the two themes of the following ethnographical story. It was not until I began a process of self-reflexivity that I realised how much my own journey had influenced my pedagogy, and hence, this research will recall my own progress towards ecological conversion that has initiated this auto-ethnographic account in response to the research question:

- What is the lived experience of the researcher/teacher in her journey for spiritual ecological consciousness towards ecological conversion?

An auto-ethnographic account has relevance for this thesis on two levels. Firstly, it provides a personal example of the struggle to believe that human activities could bring about the demise of the Earth through but, more importantly, that I had contributed through commission or omission to the plight of the Earth. Once that realisation dawned, I was presented with a challenge to do something about it, that is, to change the way I perceive myself on the Earth by reclaiming my true place in the universe story. This place is one of relatedness and interdependence. Finding an impelling motivation through my religious beliefs fostered the will to make a difference in my own life, and consequently, in my teaching. Secondly, I realised that as an educator, especially of religious education, I had a wonderful opportunity to share my ecological conversion insights with my students inspired by an appreciation of the awareness that if I do not teach them when they are in my care, then who will? Accepting the fact that coming to ecological conversion had taken me many years, and aware of the urgency to inform my students of their interconnectedness, interdependence and interrelatedness as a pathway to ecological conversion, reflection upon my own



experience seemed to provide the possibility of an accelerated journey for my students. I have been affirmed in this decision since doing my research by my students asking such questions as ‘Why haven’t we been told this before?’ which echoed my own response of years ago.

## **My Ethnographic Journey of Growing in Spiritual Ecological Consciousness towards Ecological Conversion**

### **Preamble through my early years**

I grew up in rural surroundings with swimming, fishing, camping and hiking being very much part of my life. I do not remember thinking anything beyond the enjoyment of it. It never dawned on me to think about such wonders as the universe story and my place in that story. Life was wonderful and full of promise for the future. Apart from listening to adults talk about the ever-present prospect of drought and crop failure, there was little concern about anything else of an environmental nature. Awareness of a pending environmental crisis came much later.

### **My journey solidifies**

The first introduction to my awareness of this unexplored phenomenon occurred when I was at Teacher’s College. We were given an English assessment task to complete a biography of a well known person, and I happened to come across the works of Teilhard de Chardin, a French Jesuit, palaeontologist, biologist, and philosopher who integrated Catholic spirituality with natural science. Now, with hindsight, I wonder how I ever thought I understood his insights into our connectedness to creation. It did leave me with a deep desire to understand creation, evolution, and my place in the universe. I remember feeling very pleased with myself and proud of my work, but the return of my assignment told me not to continue any interest in this person or his ideas as they were under suspicion for unorthodoxy.

I found this directive not to pursue this newly discovered phenomenon very troubling as it had offered me a very real ‘wow’ factor about my life as a woman of faith. As life went on, I shelved the desire to pursue this intellectual delight. The years passed and the excitement of teaching took over, but on reflection, not completely.

This was the 1970s, and with hindsight, I think I was a fringe dweller of the ‘Hippie’ movement thinking. I was drawn to the ‘flower people’ and the ‘peace people’ and I felt a kindred spirit with their way of life and aspirations. I bought a guitar, put peace stickers on it, and wore caftans resplendent with beads. The photos of me during this time give my children a great deal of amusement. I would have loved to have been a ‘hippie’, living simply in a self-sufficient community, growing organic foods and dabbling in Earth spirituality which was viewed with suspicion by my churchy friends. It was after all the ‘Age of Aquarius’!

I can now see that what drew me to admire and want to imitate the environmental activists who were defending the rainforests of the world, was a deep yearning to reconnect with nature. However, my strict upbringing did not allow me fellowship and sanctuary with such an alternative and permissive group. Over time, though, there has been a shift in grass roots thinking on environmental issues validated by scientific research that has led to the formation of Green parties across the world. The success of the Al Gore (2006) film *An Inconvenient Truth* is testimony to this shift. I feel comforted that the prophetic hippie era of enlightenment has come to maturity and some of the environmental concerns of the ‘New Age’ people are now firmly ensconced in the political arena. I am delighted and relieved that this new societal upsurge in environmental consciousness has given credibility to my long-standing concerns about the health of the environment and freed me to pursue my insights and beliefs with confidence.

About ten years ago, I attended a seminar facilitated by Sister Miriam McGillis, founder of Genesis Farm, New Jersey, which practises sustainable farming and educates others in the great story of the universe and environmental sustainability. Amongst a plethora of inspirational insights into our connectedness to nature, she spoke of Teilhard de Chardin’s work. I felt the very mention of his name vindicated me from supposedly straying from the

path of the faithful. The intellectual and spiritual gleanings from this seminar produced the impetus for a major turning point in my life. The pursuit of ecological consciousness was now firmly on my life's agenda. Big questions surfaced for me.

I remember feeling elated but confused about this particular presentation, which profoundly illustrated my relatedness to all creatures. I wondered why I had I not known this before since it was so relevant to where I was regarding evolutionary consciousness. Why was I hearing about this intimate connectedness with creation for the first time? It was a revelation for me to be told that we are all created from the same elements; that all creatures evolved from the same matter, and that I was, as a creature of the Earth, interconnected, interrelated and totally interdependent, my existence intricately interwoven with all creation. What I learned from Miriam McGillis resonated with my soul, which seemed to explode with excitement as echoes of Teilhard de Chardin's teachings resounded over and over again. I experienced an amazing sense of belonging to an ancient past, intimately connected to the cosmic story of the universe. To learn that the Earth lives and therefore can die, the James Lovelock (1979), *Gaia theory*, completely changed the way I perceived everything on the Earth, that is, every eco-system is valuable in itself, every creature has an irreplaceable role to play in the health of the planet.

The study of spiritual ecological consciousness towards ecological conversion appealed to me, particularly because of my own very disjointed and fragmented experience of coming to understand the environmental crisis and the need for undergoing an ecological conversion. My enthusiasm for understanding the connection between my professional career in education, my spirituality, and my appreciation of our cosmic story grew more intense as my awareness of our ecological crisis intensified.

As a mother, grandmother, and educator of the young, I felt a responsibility to reclaim what the ancient traditions have known for millennia, that humans are intimately and irreversibly interwoven in the story of the universe and every creature has value. Once having learned about this sacred mystery, I felt committed to retelling this magnificent and

momentous story so that we might assume to our rightful place in harmony with all the Earth communit

### **My desire to share my amazing insight**

Sadly, I allowed these gems of wisdom and joy to fade yet again into the recesses of my consciousness. The people on the farms around were concerned about their local environmental issues and worked in practical ways to make a difference. As a member of Landcare, a local group of farmers concerned about sustainable farming, I attended their meetings and discussions on salinity, rabbit and weed control, soil erosion and planted hundreds of trees on our property. While all of this was beneficial environmental activism, it was the spirituality of connectedness to the Earth and the God of all creation that I longed to share. I had come to think differently about the Earth, to view the Earth as sacred, as precious to God, to love her, and this was for me a lonely relationship, for others did not seem to share my newly discovered love.

### **Kindred spirits, an eternal blessing**

It is said that ‘birds of a feather flock together’ and as time passed, I began to seek out like-minded people, just a very small group of people who had themselves undergone an environmental awakening, an ecological conversion or developed a spiritual ecological consciousness. I sought people who were pro-active in working or teaching for sustainability, people who were committed to passing on the message of our common ancestry through the story of the universe, and people who also longed to share the intimacies of connectedness with nature. They were authors, activists and educators.

Inspired by this small band of kindred spirits in the advocacy for the rights of the Earth, I felt a sense of purpose although the task of educating students seemed daunting. Reading the literature, for example, *The Dream of the Earth* (1988) by Thomas Berry and *God’s Earth* (1995) by Paul Collins enlightened me, empowered me, and gave me a sense of

hope as all over the Earth there were individuals and groups committed to raising awareness through education. For me, the thought of throwing in my lot with the environmentally concerned people was very humbling for I felt that they were powerful voices, not in the wilderness, but for the wilderness. In a special sense, I felt that my friends were modern day prophets heralding a message not readily received by all. However, they were authentic and knowledgeable in their passion for the Earth. I wanted to be numbered amongst them and share their conviction and commitment to be an active voice for the voiceless Earth. Although I was prepared for the crisis to get worse before it got better, there now seems to be reason to be hopeful in the light of the rising consciousness due to the excellent work of many environmental crusaders under multiple guises.

### **Personal challenge to a dichotomy in my life**

Despite my willingness to respond to Pope John Paul II's call to an ecological conversion and an ecological vocation as a matter of faith, I found it challenging to review my lifestyle and reduce my ecological footprint. From my reading of the available scientific research, I learned that I was living beyond my moral and ethical entitlement to the Earth's resources, and I was out of equity with others who struggled for survival. I felt compelled to adjust my lifestyle, as I could no longer justify the dichotomy between how I live and how I should live if I was committed to an ecological conversion.

At the same time, the talk of gloom and doom surrounding environmental degradation and threats to sustainability were becoming more urgent. I believed that these life-threatening issues could only be addressed through the processes of education. I remember feeling pangs of guilt when I realised that I had lived my life with blinkers on and had failed to see that in my desire to live a 'good' life, I had seriously omitted to consider a good life for all other creatures. My efforts to replant, reserve, reuse, recycle, reclaim, reduce were all inspired by the need to secure sustainability for me, for human life, and this was not going to be enough to ensure perpetuity of a 'good life' for all.

On reflection, I think I took my own issues into my teaching. My quandary was that if I was not prepared to change my lifestyle to reduce my footprint to one Earth then there was for me an internal ethical conflict, a disturbed conscience, and my teaching a falsity. So it was with these personal dilemmas, which no doubt are synonymous with others who are endeavouring to do their part for the environment, I entered into the task of changing the way I think so that I would change the way I live.

As a result of my struggle, I had to rediscover and reclaim what I had lost rather than attaching to myself something that I had never possessed. Whilst Earth spirituality belongs in the hearts and minds of all people, it is especially wonderful for me as a Christian. Throughout my reading of accounts of impending ecological disaster, I felt very strongly that I was not alone in this work. At this time, I was especially inspired by Berry (1999) who calls this commitment the ‘Great Work’ to be done in our time and I wanted to join the many thousands of people who were engaged in this great work.

I realised that there is much to give me hope. It seemed to me that once environmental disasters are identified, then education could more readily result in restoration. I found all this learning very positive and coupled with a deep faith in human nature that whatever has to be done, will be done after enlightenment and challenged through education. This was a wonderful source of inspiration to me, to believe that education can be very powerful and instrumental in restoring a healthy web of life.

### **My moments of denial**

Although I was deeply caught up in the compelling scientific evidence of the effects of global warming and loss of biodiversity, I often wondered if life as I know it on our planet was seriously threatened. Could this really happen to us? Could we as human beings really have contributed to the Earth’s demise? I was compelled to wonder that if the ecological crisis is so serious why is everyone not concerned about it? When I sit on our deck, enjoying the sunshine, a coffee, the garden, and watching my garden birds, it is difficult to believe that

our environmental situation is perilous. Words such as ‘cataclysmic extinction’, ‘death of nature’, ‘diabolical climate change’, ‘end of life’ and ‘time frames for environmental disaster’ were very disturbing and weighed heavily on my mind.

In conversation with other adults regarding the environmental crisis, there did not seem to be cause for alarm, and I certainly did not want to be an alarmist. Some of the commentators on the ecological crisis explained why we refuse to acknowledge our dilemma. I had to process all these questions before running the risk of placing burdens on the backs of young people who I felt may not be equipped to cope with the challenge of turning the environmental crisis around. I pondered on the idea that if mature adults found it too stressful to discuss, then should young people be burdened with the responsibility? In the recesses of my mind, from my days of special education and working with the gifted, I was also aware that academically high achievers and very sensitive young people are deeply affected by injustices. Faced with the immensity of the environmental crisis, some of my students might experience a sense of powerlessness and hopelessness regarding environmental issues, which could cause them grief.

### **My journey forward based on a spiritual renewal**

My reading indicated that what was needed was a spiritual and moral renewal in our relations with the total Earth community. I found this appealing as a possible approach, one that would uplift the students’ spirits, and call forth that deep inner sense of belonging to the Earth. I was also inspired by the work of John Seed (1988), who argued for an intimate and spiritual connectedness to all creation, so that if we think about the Earth in a loving and respectful way we will then treat the Earth differently.

This simple but wonderful insight appealed to me, so I pondered how I might educate young people to think differently about the Earth when the complexity of issues impacting on the health of the planet seemed to defy my understanding of it. I pondered on this strange paradox about life. I think I understood the cliché ‘ignorance is bliss’, but once having been

endowed with eco-wisdom, and fear for the future for my children and grandchildren, I desperately sought an authentic but gentle pathway towards long-term sustainability. I began to wonder what it might be like for senior secondary students to grow in an understanding of, and an appreciation of, their spiritual connection to nature through education as a pathway to sustainability.

### **Challenges of designing an educative process for ecological conversion**

My previous attempts at teaching about environmental deterioration seemed to open a Pandora's box of issues and emotions and it was hard to put the lid back on it, probably because I was more aware of the problems than of their resolution. The feeling of failure as a teacher of environmental awareness that I described in Chapter One caused me a great deal of angst even though I was responsive to the necessity to inform students about the most challenging crisis facing them today. As an educator of youth, commissioned by Pope John Paul II to educate for ecological conversion, I wondered how it might be done in such a way that students would feel empowered to make decisions to walk lightly on the Earth.

My decision to prepare my students for this pivotal moment in history, and the experience of teaching units of study to evoke a sense of spiritual ecological consciousness in my students was an exciting but hazardous journey. As a result of what I had come to understand about young people's lack of readiness to open themselves up to the critical issues relating to the impact of human activity on the health of the planet, I was always on my guard to avoid certain aspects that I knew from experience were a 'no go zone'. If I wanted to capture their imaginations, tap into their naturalistic intelligence and spiritual intelligence, inform them about the more delicate and sensitive areas of spiritual ecological consciousness and bring them to an evolved sense of consciousness, then it had to be done by inviting them to see themselves as people who are intimately part of the universe story not participants in the continuing 'progress' story.



As a parent and educator, the message I have inadvertently given my children and students was to study hard so that you can achieve a good university score, so you can secure a good job, to earn more money in order to buy more, bigger and better consumables. There was in me a strange sense of irony, an absurdity, to imagine that I who had been an exhaustive consumer, should now be asking my students not to go down the pathway of my era, but rather, to live with much less. I sometimes doubted my wisdom of taking on such a challenging role.

However, through reading, attending conferences and seminars, the message was relentless; education was needed. Still, I felt untrained and ill prepared for this work. I was equally cognisant of the fact that our students had received limited exposure to their spiritual connection to the Earth. Their concern for the environment seemed to be limited to litter, the need to recycle waste and conserve water and energy. It was little solace that the very convincing research of environmental scientists seemed to fall on deaf ears of governments and people generally, and the scientific community was becoming frustrated because the present economical pursuits of governments ignorantly ignored the plight of the long-term consequences of choosing growth economics over environmental sustainability.

The problem for me, then, was to discover a way to teach for ecological conversion. This had to be accomplished without igniting feelings of fear for the future, powerlessness, futility, frustration, hopelessness, crushing guilt, or affording blame. My teaching required a positive approach that deeply affirmed the students so that they felt empowered to make a difference.

In earlier teaching of Earth ethics embedded in environmental issues, I had exposure to negative feelings through the students' discussions and their writings. Whether I spoke about water, air, soil, oceans, loss of biodiversity, extinction of species and forests, the present state of the Earth and forecasts for the future, the outcome was depressing. I realised that it takes a great deal of maturity for anyone to acknowledge the facts, through environmental awareness and the scientific data available today, and accept some degree of

personal responsibility. All this, in turn, presented a challenge to me to engage in the dialogue and actually commit to doing something about it, to ‘walk the talk’ as they say.

My lived experience of engaging in spiritual ecological consciousness and sharing the journey with my students was challenging but very rewarding. I felt a sense of satisfaction that this pathway, explored in this thesis, was effective and provided a foundation for all other learning about the plight of the Earth, which will come to them through the media and their own lived experience.

My teaching continues to respond to changing environmental consciousness. My preoccupation with preparing students for their role in reversing climate change is a constant commitment to prepare them to join in the chorus of voices in the wilderness so that all might come to view the Earth with humility and gratitude until we all walk lightly on the Earth.

My own journey towards spiritual ecological consciousness has been one of many awakenings, many disturbing insights and new revelations. It has been an unexpected journey, but a welcome one. Faced with the decision to engage in research for my thesis, the problem arose as to what it was in my life that really interested me and would ignite a fire in my belly that would burn for five years. A deep and abiding concern for the environment seemed to surface in my consciousness. Finally, I realised that my interests culminated in a growing concern for the health of the planet. For over twenty years, I had been drawn intermittently to a growing appreciation of my place in creation. At the same time, I realised that my love for my profession as an educator provided an opportunity to engage my students in what I was coming to believe was a very relevant area of study, but one with no domain of its own.

### **The continuing journey**

As I write, the environmental issues continue to swirl around me but the sense of alienation from my community has dissipated due to the ground swell of interest in global warming and other environmental issues. I feel a great sense of relief that what must be done about global warming and other environmental issues is being argued in the political arena as a direct result of the recent Federal Government elections, which sent an urgent message to those who have so much power to make a difference. I am relieved that my vote for the Earth was joined to the critical mass of voters for a new way of being in the world that is respectful of the Earth community. Even though the wheels of time have ground exceedingly slowly up to the present, I feel a strong sense of empowerment to continue to educate for environmental sustainability now that we have been rewarded for our commitment with a new governmental Ministry for Climate Change. This is an amazing outcome after twenty years of wandering in the wilderness of pending environmental disaster. Therefore, not only do I hope to achieve academic success by completing this thesis; I will have been rewarded by the illumination it has thrown on my life's journey to understand spiritual ecological consciousness towards ecological conversion.

## CHAPTER SIX

### CREATION THEOLOGY STUDENTS TELL THEIR STORY

#### Introduction

Chapter Six presents the research data from teaching Year 10 students *Creation Theology* for ecological conversion. The methodology used to gather and interpret the interviews was hermeneutic phenomenological as presented in Chapter Four. To reiterate, this involved the researcher in interpreting the data gleaned from semi-structured interviews (van Manen, 1990). The process involved reading, reflecting, and re-reading the participants' comments. For the purpose of uncovering and interpreting the experience of the participants in this study a holistic or sententious approach was used for isolating the themes embedded in the data (van Manen, 1990). This approach required the researcher to be attentive to phrases, sentences or part sentences of the interview transcripts to examine thematic statements in hermeneutical/phenomenologically sensitive paragraphs (van Manen, 1990) that shed light on the experience of learning about spiritual ecological consciousness towards ecological conversion. Transmitting meaning requires language and language is context dependent (Denzin & Lincoln, 1994). This meant looking beyond the participants' comments, that is, what was immediately captured in their language, to their life-world outside the classroom. Therefore, this chapter addresses the research question:

What is the experience of students who have participated in studies focused on spiritual ecological consciousness towards ecological conversion?

Three sub questions aided the interpretation process, that is:

- From a conceptual understanding, how did the experience of teaching and learning engage the students in contemplating their interconnectedness, interdependence and interrelatedness with the natural world?

- From an affective understanding, how did the experience of teaching and learning engage the students in order to understand that the Earth is sacred?
- From a spiritual understanding, how did the experience of teaching and learning engage the students so that they could develop their sense of ecological consciousness?

Annie, Jody, Jeremy, Sharon, Cindy, David and Robert are the pseudonyms given to the seven students who participated in this research. I have included the students' pseudonym at the end of each quotation to personalise each students' experience. A sample of the interviews is included in Appendix 2. Each response from a participant is numbered for referencing against the text included in the data.

### **Explication of Themes**

To complete the analysis, each of the participants' stories was examined to discern the themes that began to emerge. The shared experience of classroom learning and the interview questions helped to isolate the main themes which were uppermost in the students' minds when they came to the interview, especially their reflections on the creation stories (van Manen, 1990). During the process of writing and re-writing, I sought to create a document that would speak to the reader so that the experience of the students was interpreted in a way that valued their self-reflexivity. To do this, I drew on the insights gleaned from the published literature that helped me to generate a schematic approach for interpreting the experience of spiritual ecological consciousness towards ecological conversion. The experience of teaching this class initiated the idea of a sequential pathway that is, moving from an awareness of an environmental crisis to an ecological vocation for the renewal of God's Earth. The schema provided a platform to present an analysis of the research data under thematic headings and therefore, drawing on this process I have discerned four major themes that encapsulate some of the students' more insightful experiences. Not all the participants contributed to all the themes as each expressed their own journey in response to their classroom learning and life experience. The themes are:

1. Experience of the challenge of marrying the religious account of creation with the scientific account of evolution of the universe.
2. Experience of a sense of ecological consciousness.
3. Experience of ecological conversion.
4. Experience of the creation theology class.

### **Theme 1: Experience of the Challenge of Marrying the Religious Account of Creation with the Scientific Account of Evolution of the Universe**

The first question asked of the interviewees was a general question to engage them in the dialogue around *Creation Theology* with a view to appreciating each student's experience of spiritual ecological consciousness, for example, 'Could you tell me about your response to what we have learnt in our study together over the past weeks, what it has meant to you?' Most of the respondents seemed to interpret this question as an invitation to comment on the dominant theme of the *Creation Theology* topic which was 'creation'. Generally the participants reported a significant learning curve regarding creation and from their stories, it can be discerned that this was a new and valued experience. Annie, for example showed her delight by being able to link her previous biblical understanding of creation with her newly acquired scientific version. She recalled her experience: "The scientific account ... it was good to see how the Bible and the Church parallel the scientific story of creation, like how you can interlink them and how they do join together even though at first glance they don't seem to" [Annie - Interview 4: Response 2].

Jeremy shared his personal position of being 'a science person' and so he brought to the interview his perceptions of previous learning regarding creation. However, he surprised himself when he felt drawn to examining the religious understanding of creation.

I am a bit of a science person so when we did the science side of things, I was fairly interested in that and when we switched over to look at the Genesis creation stories then I started to see... I've had a deeper look into it to see what it is actually really about [Jeremy - Interview 3: Response 3].

Jeremy's experience of the creation stories was one of open mindedness. He declared himself a 'science person' who loved to learn. He attempted to make sense of both the scientific and biblical accounts of creation, and as he stated, "come up with the new view" [Jeremy - Interview 3: Response 13], that is, his own digested version. Jeremy commented, "I love to learn ... it's just great to learn new things ... I prefer to think that I would try to look at the two [scientific and religious] and see what's the difference between them and how they came up with the new view [of creation]" [Jeremy - Interview 3: Responses 12, 13].

In a similar way to Annie and Jeremy, Sharon's experience of the creation stories was one of awakening to new insights. Sharon suggested that it was a confusing process but "I sort of got there" [Sharon - Interview 5: Response 9]. She expressed her dilemma of trying to resolve her personal conflict of accepting both the Genesis story and the scientific story. It was revelatory for her to see the connection between the environmental crisis and coming to grips with her connectedness to all creation. These new concepts presented Sharon with a multiplicity of information for reflexive thinking to reveal her experience of the creation phenomena. Sharon pondered on her new position:

[Creation] was obviously caused by something or someone so that's sort of how the Christian story ties in ... that God created this Earth and made it happen even though it wasn't as it was written in the Bible ... I wasn't aware at the beginning, but I sought of got there and that's where I am now and that's what I believed happened ... and it was all new to me ... finding out what we have to do to help the planet and stuff ... so putting them together [science and religion] that way makes more sense. I believe there is a connection there with us all originally being made from the same thing ... so I think that is how we are all connected [Sharon - Interview 5: Responses 8, 9, 10, 13, 15]

During our discussion, Cindy shared her experience of relating to the different versions of creation and making connections. She also expressed her confusion about marrying the scientific with the biblical creation stories. She said that it made her feel different, that is, "think outside the square" [Cindy – Interview 6: Response 9] and thinking differently about her relationship with the rest of the natural world. For Cindy, God is the

author of life and everything created has value in itself. She expressed her struggle to explain her new position this way:

... creation stories from different backgrounds and just how people view creation and what they believe in and how there is a scientific and religious account of creation and how they differ ... it does sought of effect you and makes you think outside the square ... the scientific 'things' of creation ... that he [God] created everything according to size ... everyone to be different but unique and we are all perfect in His eyes [Cindy - Interview 6: Responses 3, 9, 31].

In her efforts to marry the different understandings of creation, Cindy felt she had to accept one and reject the other "I think I probably moved the Biblical one over and accepted the scientific story" [Cindy - Interview 6: Response 12]. David also spoke about his experience of creation as a new experience "the creation of the world, the seven days story and the rest of the stories. We learnt about the scientific creation story and how the Earth evolved. Pretty much all of that was new to me" [David - Interview 7: Response 1].

David also raised the issue of the Cosmic Walk, a ritual experience of the story of the universe where the participants were invited to immerse themselves in the scientific story of creation, see for example Chapter Three, p. 66. He seemed to move from the notion of accidental creation to everything created is meant to be here and has a purpose and value in itself. David related that "I really enjoyed the Cosmic Walk. I found it really interesting all the way through. The Genesis creation was really interesting ... that everything was created for a reason. Everyone is meant to be here. Every bit of creation is important, every part of it"[David - Interview 7; Response 4].

Robert was another student who related scientific influence in the way he was drawn into creation theology. Besides enjoying the biblical creation stories, he was very open to the creation stories of other cultures. He was able to see the connection between the stories and the environment in which they were created. Robert asserts:



I was initially in because of the scientific [account of creation] ... sort of enjoy the sciences, so that was a pretty good lead in and then we sort of went in depth to the other cultures. I just like looking at the different perspectives on that... creation theology... was really good because we had everyone's project presented differently, actual creation stories which meant that you got to see creation stories from all around the world ... influenced by the environment they were in [Robert - Interview 1: Response 3].

An 'awe and wonder' moment, as discussed in Chapter Two, for Annie came with her understanding of the similarities between the Biblical Genesis account and the scientific account of creation. This was in reference to the sequence of creation, what was created first and what was needed to sustain human life on Earth. Annie was impressed with her ability to unite the two in a way that was satisfactory to her way of understanding creation. She continued the theme of 'awe and wonder' expressed through humility before the great story of the universe and her place in the story. In a similar way to David, Annie experienced her own universe story in the ritual of the Cosmic Walk. She found the experience 'very scary' [Annie- Interview 4: Response 7] to actually recognise herself in the story: "The scientific account, you can see yourself in that, in a scary way ... The cosmic walk is very scary to actually accept that you are part of that because of how big it is and how large it is, and how insignificant we are [I am] ... how small we are [I am] ... a dot on the page of a novel" [Annie - Interview 4: Response 7].

### **Summary**

The theme of marrying the scientific account of creation with the biblical account of creation appeared to give the students a different perspective about the way they view the created world. It seemingly commenced a sense of 'awe and wonder' for them as they contemplated the universe and their place in the universe story. Their comments are also imbued with the beginnings of ecological consciousness as they made the connections between their life-world and the creation stories especially the synthesis of the scientific version with their faith version in the bible. The students expressed their appreciation of new

knowledge which helped them to make sense of their world and improved their understanding of the created world that is a history, meaning and substance and they are part of it.

## **Theme 2: Experience of a Sense of Ecological Consciousness**

Ecological consciousness is defined for this thesis in Chapter One and explored further in Chapter Two as conscious of interconnectedness and interdependence. It links into the ascending schema as an important beginning for ecological conversion. Although the schema was not fully developed when the interviews were conducted it is possible to argue that the students' comments express a sense of ecological consciousness, for example, for Annie, the experience of developing ecological consciousness was very challenging. When she immersed herself in the universe story she confessed that she felt overwhelmed by her new knowledge of connectedness "I don't know, something scary to accept that you are a part of it" [Annie - Interview 4: Response 7]. Annie attempted to make sense of her inner journey of exploration of her own involvement in creation. She expressed each new learning curve as "scary" as it added a new depth in her journey of self-awareness of her engagement with the creation story. Annie revealed that, "sometimes I believe and think about that but it gets too much and you just have to shut it out ... if that makes sense? It is like you are learning all the time ... adding to different things and different views" [Annie - Interview 4: Response 7, 9].

Jody expressed the beginnings of her experience of ecological consciousness. She appreciated that her actions can and do have consequences for the environment. She was amazed at her previous narrow-mindedness and lack of vision. Jody welcomed her new vista of "opened doors" and "stepping out of the square" [Jody]. She confessed that:

It has been good ... I have learned all about taking a branch off a tree or stepping on an ant, I didn't know how it could be so tragic, it's like, so narrow minded, and it's opened doors ... like stepping out of the square. You should think about what you are doing, like, if you do something it can basically have a bad effect, and I had not thought about that all that much [Jody - Interview 2: Response 8].

Jeremy also articulated various interesting views regarding his experience of ecological consciousness. He felt his knowledge of evolutionary theory had been challenged to embrace another dimension synonymous with God as creator of all regardless of how life originated and evolved. He also expressed amazement at his fresh wisdom that had evolved through self-reflexivity.

My thinking has changed quite a bit ... I thought that with our spiritual connectedness to the Earth, it was more just say man evolving from the apes ... I see that it is not just our connection to the apes, it's a connection to a whole lot of other different things and other creatures and animals that have come before us ... I think I have moved from the whole God was just sitting up on a cloud saying this is how it's going to be...and that's what it was ... I think it is a lot deeper than that and there is a lot more to it than what is seen on the surface [Jeremy - Interview 3: Responses 16, 19].

Sharon discussed her new sense of responsibility to be a good caretaker/steward of the Earth after realising her connectedness to all creatures. In her words "I didn't think much about it and it never occurred to me" [Sharon - Interview 5: Response 17]. Sharon reflected on her coming to terms with her experience of ecological consciousness. Sharon maintained that:

We have to look after it [the Earth] because I think of it as...it's not ours, we don't own the world, we are just caretakers, so I believe we have to look after it and keep it going sort of thing...I didn't think much about it and it never occurred to me that we would all be connected. After learning this I realised I have a connection to everything [Sharon - Interview 5: Responses 16, 17].

While commenting on her connectedness to creation, Sharon expressed her consciousness as a physical connection and at the same time an emotional connection. The emotional connection that she refers to is expressed through her faith in God which is a movement towards spiritual ecological consciousness. She believed that:

... definitely, if we are all connected physically there has to be some other connection it can't just be physical, it sort of has to be connected emotionally. He [God] caused something to happen which caused a chain reaction and then we're here today sort of

thing ... so there must have been something that caused it to happen and I just believe it is God [Sharon - Interview 5: Responses 18, 19, 20].

Cindy also felt open to spiritual ecological consciousness. She was aware of her ecological development over the duration of the topic. She made the connections between her faith and the way she lived with creation.

I feel more connected than when we hadn't started the topic. I didn't have any idea in the first sheet [the pre-reflection sheet] that we did but I'm more aware that everything that God has made we shouldn't tamper with it. Like He created everything for us ... if we damage the environment ... we are sort of disobeying His teachings ... He put us on the world to ... just look after and appreciate everything [Cindy - Interview 6: Responses 47, 48].

Cindy elaborated on her position of coming to grips with the environmental crisis and her preparedness to understand her oneness with the environment, "I view them [the natural world] differently ... we are wrecking the environment and we should accept the environment" [Cindy - Interview 6: Response 51].

David shares Cindy's struggle of coming to ecological consciousness. He unashamedly spoke of his slow progress towards understanding his connectedness to all creation.

I didn't have a very good understanding of it [creation], I thought it was new and very interesting...I'm still just learning a lot about creation; I don't know a lot so it's good to learn about it and it will unfold over time. My understanding is that every creature is connected in some way. We are all meant to be here, put on the Earth by God. We are all the same world and all connected [David -Interview 7: Responses 9, 10, 13].

David admitted that prior to this study, he had not placed himself in the story of creation and now he was experiencing his connectedness, and has come to an understanding within an eco-spiritual perspective that every creature has a place in the evolutionary story. This is the foundation of spiritual ecological consciousness, that is, to make the connections between care of the Earth and the Earth as belonging to God. David confessed that, "I didn't really

think about it much. I'm actually thinking about it now ... that God was the Creator of all creation. He chose what he wanted on the Earth, everything that is on the Earth and everything that has been created because he wanted it for a reason" [David - Interview 7: Responses 14, 17].

Robert described his experience of ecological consciousness and expression of connectedness as particularly challenging to his way of thinking. He expressed his understanding of shared existence and relatedness since time immemorial. Robert recognised his common ancestry in 'stuff', the composition of the elements of all life. "I was saying before, that everyone's made of the same stuff. Everyone is made of the same stuff and even the animals and other stuff is made from it too, so everyone's made of the same stuff going back a long way" [Robert - Interview 1: Response 5]. Robert spoke passionately about his appreciation of his own evolutionary story in the light of the universe story. The following passage shows that a whole world of 'awe and wonder' about creation opened up for Robert as he struggled to rationalise the commonality between science and spirituality in relation to creation. His experience of coming to understand the Earth as a living organism seemed to excite him as a rational thinker, as well as finding a connection between connectedness and sustainability.

Well, basically the first bit that everyone agrees on is that it started by some great force, some people don't know what it is ... some people name it as God ... the scientific creation [story] started with a great force ... they [I] don't know what it is but in the Catholic story everything is just made. In the evolution story, everything sort of evolved from one thing to another due to circumstances ... cosmology ... it's the stardust, because everything is made from the same stardust, everything's connected, mainly all living things are connected because they are living, also non-living things are made from the stardust as well ... [the Earth] even though it is not living the same way as other things, it's got living things on it and it's living itself, it's got magna and all that stuff underneath it. It's moving around and holds life onto it too, that's the important part, otherwise nothing would be here anyway ... it [the Earth] sustains it so basically it's more the Earth sustaining the creatures above it than the creatures sustaining the Earth ... something depends on another to keep its livelihood [Robert - Interview 1: Responses 9, 10, 11, 12, 13].

Here, Robert has expounded on his journey towards his understanding of connectedness to the Earth. He has expressed his awareness of the interdependence of all creation and made important connections between the health of the planet and human well-being. His positive perception and reception of the natural world helped him to focus on the Earth in crisis. He recalled his frustration when he was challenged by the pre-reflection questionnaire and shared his delight when he responded to the post-reflection. “In the pre-reflection you had to think about it, in the post reflection you thought that’s one, there’s another one, you sort of ran out of room” [Robert - Interview 1: Response 23]. Robert appeared to internalise his learning experience of ecological conversion. Robert had ‘joined the dots’, so to speak, and the link between creation and conservation made sense to him. He was very confident in speaking about his new conviction on the subject of interdependence. He argued that:

Well, I’m connected just like everyone else is connected to the Earth because you can’t live without the Earth. You’re connected to the trees because you need them to breathe and you are connected to anything you eat because you need that to stay alive. You are connected to the atmosphere because that’s where the rain comes from which is the water we need more than food. It was easier to see what we are doing wrong in the community [Robert - Interview 1: Responses 22, 23].

Robert continued in the same vein regarding his connectedness to the Earth and ecological consciousness. He appears to have enjoyed opportunities to experience his connectedness and at-oneness with creation around him. For him, it was not just a heady fascination; it was also experiential:

You sort of realise they are [all creation] made of the same stuff and that you are dependent on them. But sometimes you just don’t take any notice of them [creation] ... you just walk past them [creation] or you don’t look up ... but when you do, you just sort of have a deep thinking ... it was good when we had time to ourselves, we just sat there in the silence and thought of all the trees and nature around you and so that was good [Robert - Interview 1: Response 27].

## **Summary**

The students conveyed a sense of movement in their ecological consciousness from a position of not understanding anything to do with their connectedness to creation to celebrating their new wisdoms that encompassed their spiritual, emotional and intellectual experience of their journey of self-discovery. They offered examples of their ‘joining the dots’ experience, which resulted in a more holistic view of themselves. It was a view that appeared to be welcomed by the students. Some of the students also expressed ideas that suggested the beginning of their journeys towards ecological conversion. They began with their appreciation of newly found knowledge on interconnectedness of all creatures in the universe story of creation and wonderment of their involvement in it. The students endeavoured to make the important connections for spiritual ecological consciousness as they expressed the need for right relations with the natural world, which for them, because it firstly belongs to God and their responsibility to be good stewards of the Earth.

### **Theme 3: Experience of Ecological Conversion**

Ecological conversion is defined as a process from viewing the Earth as a resource to be exploited to a commitment to restore/renew the Earth because it belongs to God and Catholics are called to be responsible stewards. In one statement the students can express sentiments that belong in a number of levels of the schema but they can all lead to an ecological conversion. Annie’s ‘soul searching’ throughout the interview brought her to a deeper understanding of her call to ecological conversion. She articulated her awakening to new imaginings of the reality of the needs of the natural world and what could be in the future. Annie’s account of her experience of relatedness to and relationship with all creation shared a deep soulful moment of sadness and regret for what has been lost and perhaps she is envisioning a different lifestyle for herself.

I reckon I would be quite happy not living with cars and stuff. I believe society needs to stop seeing itself above nature, animals and trees and that we think too much of ourselves. Who are we to say we are more important than the animals or trees or the

ocean or anything like that? It is so sad to think of everything that has been lost to give way to concrete [Annie - Interview 4: Responses 16, 17].

Jody, too, spoke deliberately of her desire to undergo an ecological conversion. Her preconceptions of the destruction of the environment became tempered with a new perspective of the Earth as, firstly, belonging to God. Jody explained her personal struggle of coming to grips with her new position, that is, one of identity with God and the natural world. Her self-confession, “I just wasn’t aware of it before because I wasn’t really interested” [Jody - Interview 2: Response 58] expressed her awareness of her place in the Earth story and therefore her need to understand. She reasoned that:

...because He [God] created everything in this world so don’t go around destroying any living thing that was put on this Earth to do something...and take good care of it. I think about it more now. Like ... the stars, because I just thought they were out there and we were here and now we are all connected to each other ... it has just made me think so much about everything ... I don’t know how I didn’t think about things like that before, in that way, so, yeah [Jody - Interview 2: Responses 45, 51, 55].

Jody’s move towards ecological conversion motivated her to want to address the environmental crisis, not just by changing behaviour, but also by changing the way she thought about why things have gone wrong and how they might be righted which is a powerful expression of ecological consciousness and inclusive of a desire to renew the earth. She suggested that, “we need to go back and pick up where we went wrong and then kind of go forward from that in a spiritual sense. Could you do both? Could you look at it from both sides [environment and creation spirituality] and join the two together? We need to do away with all that stuff [environmental crisis] and maybe we need to go back also and just see what went wrong, try to change the future” [Jody - Interview 2: Response 59].

In the following passage, Jeremy also expressed something of his experience of spiritual ecological consciousness towards ecological conversion as he aligns the environmental crisis with an assault on God’s benevolence. He recounted his disappointment at the lack of good stewardship of the Earth.



There's definitely a change there ... God and Jesus subsequently died on the cross for us so God's love for us is incredible. He has made us, so we are, in the Bible, how it says ... that you shall govern over all the land and everything that I [God] have created and we've taken advantage of that and that is why we are in this difficult position of not having enough renewable resources to last us for eternity so God's love for us has perhaps, has maybe gone down a little because He said to us to take stewardship of it and not actually control it and destroy it [Jeremy - Interview 3: Response 34].

Sharon described her experience of ecological conversion through appreciating the relationship between what was going on in her own mind and heart and the notion that nature also suffers.

I probably care for the environment and things like that more often now ... Yeah! I sort of realised you have to start making changes to your life ... don't go messing with that sort of thing [nature]. I don't feel pain and stuff like that ... but I don't think it would be physical pain but you realise it in your head and it would be emotional pain. Just that we are connected with all creation whether it is physical or emotional ... I think we are all connected somewhere [Sharon - Interview 5: Responses 22, 24, 25, 27].

She has relinquished her assumption that humans are the only important creatures on the planet. For Sharon, there was a commitment to care for all the planet's inhabitants to ensure a future life for all "God's love for us ... I can't say that we were the thing that was created so that everything else around us was created. That everything else around us was so we could appreciate it ... if that was the case that things [the natural world] were created for us, we have to take care of them so they will be there and around in however many years and try to preserve everything" [Sharon - Interview 5: Response 33].

David also admitted that prior to studying this topic he had not placed himself in the story of creation, whereas he experienced his connectedness and belief that every creature has a purpose. He now saw that for him, all creation firstly belongs to God. David recalls that, "I didn't really think about it much. I'm actually thinking about it now ... that God was the

Creator of all creation. He chose what he wanted on the Earth, everything that is on the Earth and everything that has been created because he wanted it for a reason” [David - Interview 7: Responses 14, 17]. David expressed a particular perspective of an attribute of spiritual ecological consciousness, that is, to make the connections between the value of every creature and all belonging to God.

### **Summary**

The students’ experience of ecological conversion began with an awakening to the reality of spirituality and ecology. The students firstly, in varying degrees, recognised their equality with the natural world through their newly discovered awareness of relatedness that is consistent with deep ecology. Secondly, there was some acknowledgment that for them, the created world belongs to God and they are called to stewardship. Thirdly, the students then assessed their behaviour in the light of their life-world experiences and considered rejecting any activity in their lives that could cause grief to the Earth. Finally, there were some expressions of commitment to be proactive for the health of the planet through mutually enhancing relationships with the natural world. Again, there is the beginning of a sense of spiritual ecological consciousness towards ecological conversion as a pathway to sustainability.

### **Theme 4: Experience of the Creation Theology Class**

This theme is included because the students’ comments were helpful in developing the Earth Spirituality curriculum for older students. It affirms the work of Berry (1988) and Swimme (1984) who suggested that people will connect with the great story of the universe, that people will appreciate making the connection between spirituality and ecology (McDonagh (2000); Tacey (2004) and Treston (2003) and education must be imbued with a sense of ‘awe and wonder’ Uhl (2004). The students’ comments have multiple links to the ascending schema as they make reference to the various aspects of their learning experience.

Annie appreciated the experience of the creation theology class because she felt comforted by knowing that other members of the class also struggled with accepting the new information. She commented:

That's what I liked about our class. We could bounce ideas off each other. I guess I'm a bit sceptic ... about the whole creation story ... it is just amazing that people can figure that sort of thing out ... it is sort of hard to get your mind around that ... billions of years ago ... explosion ... then we are here. It's hardly one plus one, is it? [Annie -Interview 4: Responses 11, 14, 15].

For Annie, the experience of studying creation theology was beneficial and welcomed. While she did not see herself as being spiritual, she was open to the exploration of possibilities for her spiritual development. She concluded, "That's where I am at, and doing this creation unit has helped me. I don't think I'm very spiritually connected to the Earth ... but I would like to be, and I think learning more has helped. I see God in the creation. I see Him more around us as a being in everything and making everything move" [Annie - Interview 4: Responses 17, 20, 22].

Jody's experience of the class was also a positive one. She enjoyed the class because it made her think about herself and her relationship with the natural world. There was an element of puzzlement about her lack of prior understanding about creation and commitment to an ecological conversion "because it just made me think so much about everything and how ... I don't know how I didn't think about things like that before, in that way ... I thought it was a good class ... I thought we were enthusiastic about what we were doing" [Jody - Interview 2: Responses 55, 50]. Jody's response conveyed something special about the interview process as an invitation to reflect on what she had learned. In agreeing to be interviewed, Jody, as well as the other participants, could not have been aware of what would be revealed to them through reflection on their class experience.

Jeremy was emphatic concerning his experience of learning *Creation Theology*. The experience had initiated a change in him that he recognised and acknowledged with gratitude. He offered an example of his ecological conversion and a new way of being and acting in the world. He concluded:

I have definitely changed. That's one thing I'm quite confident about saying. I didn't really think that much of smaller creatures; say a spider or ant or something. Before I started [this unit] I would think...oh! There's a spider over there, let's kill it. Now it's more, let's catch it and take it outside somewhere in the garden...because in the end...it's all part of us and if we don't have those things, then we can't survive. The kind of thing that I'm saying as well I would have thought, there's the worms, cover them over and they'll be fine...now it's more...better look after them while we do the rest of the work and then put them back in a safe place afterwards. It's quite interesting actually, like when we have blessing of water...we came after the water...we should be thankful for having water [Jeremy - Interview 3: Responses 20, 21, 22, 25].

Jeremy offered an example of viewing his garden with a different lens that is, with loving eyes and expressed his commitment to interconnectedness and interrelatedness. He experienced anxiety over the worms that he previously would have dismissed as valueless. Jeremy offered a pensive reflection on the past and a possible future, "looking at the past, perhaps one hundred years ... we have evolved very quickly ... we can evolve far enough to be able to sustain our ways of living using resources that are much more widely available than those that are non-renewable" [Jeremy - Interview 3: Response 30].

Jeremy also discussed his openness towards his inter-relational status with all creation. From the fleeting thought that *Creation Theology* could be boring, Jeremy made the connections between good science and good spirituality. Even though he was proud of his scientist status, Jeremy confessed that the topic was interesting and informative and that he would have liked to spend more time on the spiritual dimension of the environment.

[I] took the unit with an open mind ... for sure ... took in new things as they came ... [I] would have shrugged off before. I will view them [creation] differently because instead of thinking ... it won't affect me at all ... is part of its own ecosystem ... ecosystems can have an effect on another ... and eventually have an effect my ecosystem. I thought when we got the course outline ... saw creation theology ... I thought ... it may be a bit boring maybe ... I thought it was interesting, informative and I would have liked to spend a bit more time on it, go a bit further ... I might delve into it ... and investigate it further. I think that everyone got into the spirit of it and

paid attention and were interested in what was happening ... do further studies on spiritual ecological consciousness [Jeremy - Interview 3: Responses 35, 36, 37, 41].

Jeremy recounted experiences that indicated that he had undergone some personal growth through his experiences of engaging in creation theology. Perhaps more significant, was his desire to embrace both his scientific and spiritual understanding of creation so as he could move towards spiritual ecological consciousness towards ecological conversion.

Sharon's experience of the *Creation Theology* class enabled her to assess her relationship with other creatures, to see a new way of being in the world in relation to the Earth's plants and animals, "It had a real impact on the class ... thinking about it more in depth ... it's not that I would go around killing stuff aimlessly but I would probably have a bit more respect for them"[Sharon - Interview 5: Response 39]. Sharon's preconceived understanding of environmental issues surfaced during the interview. Her concern over the plight of the Earth revealed her experience of ecological consciousness. Her thinking goes beyond survival needs to a utopian existence, a good place to live.

I think the study has opened my eyes a bit to the way the world is and the way we need to start looking after it otherwise down the track it will get pretty hairy like deforestation and stuff like that and pollution. I always knew it was happening but not to this depth...it's not just about surviving but also making it a good place! [Sharon - Interview 5: Responses 1, 2].

Sharon's experience of the creation theology class as presented in her own words is one of sincerity and passion. She felt very differently to when she commenced the unit of study. Her preconceived ideas of what the study was going to be about were seriously challenged indicating a meaningful experience. Sharon found the class to be very positive and open to learning. She spoke of her experience of the class, how it opened her eyes, especially when she recalled the positivity of the class in learning about creation theology. She commented:

I didn't do the pre-reflection sheet ... but I can tell you how I felt ... definitely from the start of the course and during the course, I was definitely feeling different, and I would have had different views on the topics that I read on the sheet after ... my

views would have changed. I thought it was going to be a sort of ‘green’ or ‘save the whales’ but as we got going it sort of ...looking at creation stories and the spirituality side of it...showing how we are connected...it sort of opened my eyes...to think like that...it is not just helping the environment, it also comes back to us and you get a little back...just the positivity [Sharon - Interview 5: Responses 30, 40, 45, 47].

Cindy was also respectful of the extent of the study and expressed how her mind had been opened to embrace a new way of seeing herself in the world, as unique along with the uniqueness of everything else. Cindy experienced something of a conversion to eco spirituality. She explained, “It is a big topic. You could probably study it more extensively. I enjoyed it and it opened my mind ... what really shone through for me was probably the ‘spirituality’ and that God puts us on Earth to make us look after the environment ... because He made everyone in a different and unique way” [Cindy - Interview 6: Responses 52, 55]. David also expressed a personal change in his thinking and behaviour when he said, “Yes, definitely. I am more careful and aware of water and stuff. Just the discussions we had were good and everyone in the class was involved and had their thing to say” [David - Interview 7: Responses 19, 32].

Equally, at the heart of Robert’s classroom learning, was an open mind. When he was asked to comment on his classroom experience, he appeared quite definite regarding the impact of his learning about creation theology on his previous understanding of creation. “I’ve sort of got a more knowledgeable opinion ... a lot more than I did at the start and your sort of perspective on it changes, you’re looking at it from a different angle ... looking at it from a different view” [Robert - Interview 1: Response 14].

### **Summary**

Overall, the students’ comments indicated their satisfaction with the unit, at least the students who agreed to be interviewed. They generally felt the class was worthwhile and conducive to learning and experiencing new ideas such as the scientific and religious stories

of the universe. They also conveyed moments of ‘awe and wonder’ as they struggled with their developing ecological consciousness as illustrated by their examples of treatment of the creatures of the natural world. They generally agreed that studying *Creation Theology* had opened their eyes to a different way of being in the world. Some students admitted to having previous ideas as to what the topic might entail for them but collectively they tended to agree that the experience was very positive, which could translate into positive action for other than human creatures. Studying *Creation Theology* helped them to make sense of their fears about the environmental crisis and to discern ways that they can make a difference. That appeared to be empowering for them.

### **Synthesising Shared Themes from the Participant Cohort**

In this chapter thus far, the stories of the students participation in this research have been analysed thematically with respect for the differences contained in each participant’s account. Generally, I have allowed the students’ voices to be heard as they expounded on their own experience of the themes that were derived from multiple readings of the transcripts and a hermeneutical/phenomenological interpretation of the students’ experience of spiritual ecological consciousness towards ecological conversion.

In the ensuing section, the synthesising of shared themes, the overall themes are examined and the individual accounts of teaching and learning creation theology are identified and presented in an integrative analysis. In extrapolating the themes immersed in the stories of each of the participants, I have endeavoured to identify the collective essences that essentially express the shared experience of the *Creation Theology* students. The overall theme is ‘connections’ and there are many expressions of connections such as, the connection between the creation stories, the connection with the Earth, the connection between the acquisition of knowledge and life-world experience, the connection of self and the universe story, the connection between ecological conversion and conservation and the connection between spirituality and sustainability. The common distilled essences are awe and wonder,

making connections, humility before knowledge, experiences of ecological consciousness, longing for ecological conversion and awakening to connectedness.

The exploration of the insights into the experience of the *Creation Theology* students is introduced through the explicated themes from the participants' stories. Each story presents a 'snapshot' of the participants' experience of spiritual ecological consciousness towards ecological conversion. Chapter Six presented merged thematic accounts of their stories while the explicated experiences of the participants' honour each student's personal journey.



*Table 6:1 Explicated Experiences from the Students Stories*

Name of Student	Explicated experiences from the students stories
<b>Annie's Story</b>	<ol style="list-style-type: none"> <li>1. Uniting the scientific and religious understanding of creation.</li> <li>2. Appreciating that personal actions have consequences for the well-being of the environment.</li> <li>3. Determining an environmentally sensitive pathway into the future.</li> <li>4. Awakening to new imaginings of what was, is now, and could be in the future.</li> <li>5. Gratefully reflecting on new knowledge leading to a sense of identity with God and the natural world.</li> <li>6. Puzzlement over lack of prior understanding about creation and commitment to ecological conversion.</li> <li>7. Overwhelming acceptance of her 'sense of place' in the universe story.</li> </ol>
<b>Jody's Story</b>	<ol style="list-style-type: none"> <li>1. The beginnings of 'awe' and 'wonder' at the immensity of the universe.</li> <li>2. Humility before the great story of the universe and one's place in the story.</li> <li>3. Searching for understanding of new knowledge to formulate and own a sense of ecological consciousness.</li> <li>4. Making links between scientific theory and religious belief for meaning.</li> <li>5. Conflict between the experience of the old order of humankind as dominator and the new order of shared living with the</li> </ol>

natural world with respect and gratitude.

6. Moving from a transcendent God to an imminent God present in creation
7. Longing for what has been lost and concerned about the Earth's destruction.

**Jeremy's  
Story**

1. Amazed at new wisdom through self-reflexivity.
2. Intention to pursue an interest in spiritual ecological consciousness.
3. Making connections between scientific and creationist accounts of creation.
4. Coming to understand the connections between self and the universe story.
5. Developing ecological consciousness towards ecological conversion.
6. Relating new understandings to one's personal effect on the other than human world.
7. Sense of humility flowing from new awareness.
8. Concern for the future of the environment.
9. Disappointment over lack of stewardship for the natural world.
10. Desire to engage in a deeper understanding of the Earth as spiritual.

**Sharon's**

**Story**

1. A time of awakening to new insights of urgency in relation to the environmental crisis.
2. Making connections between religious and scientific accounts of creation.
3. Awareness of the plight of the Earth.
4. Process of self-reflexivity in relation to other creatures.
5. Beginnings of ecological consciousness towards ecological conversion.
6. Wonderment about the connectedness of all creation.
7. Awareness of connections other than physical, an emotional connection.
8. Beginning awe and wonder motivation to new perceptions of the universe.
9. Confident of change, a different feeling about one's place in creation.
10. Positivity impact from the class, long-term influence.

**Cindy's**

**Story**

1. Awareness of the environmental crisis.
2. Making connections between the scientific and religious accounts of creation.
3. Responsibility before God for the well-being of the environment.
4. Overwhelmed by the complexity of the topic.
5. Awareness of the spirituality of the Earth.
6. Creation belongs to God.
7. Enjoyment of the acquisition of new knowledge about connectedness and responsibility for creation.

**Robert's**

**Story**

1. Coming to appreciate the multi dimensions of creation theology.
  2. Drawing on previous knowledge of the environment.
  3. Beginning of ecological consciousness through Earth spirituality.
  4. Making connections between the scientific and religious accounts of creation.
  5. Appreciating newly discovered connectedness to the natural world.
  6. Realising absolute dependence on creation.
  7. Looking at the world through a different lens.
  8. Making sense of the environmental crisis information.
  9. Awakening to spirituality through relating to common origins.
  10. Enjoying learning about relatedness, connectedness and interdependence.
  11. Acknowledging God as the creator of all creation.
- 

Each of the participants' experiences can be viewed, in varying degrees, in relation to one or other of the stages within the schema designed as a pathway to spiritual ecological consciousness towards ecological conversion.

### **Conclusion**

For the participants in this research, verbalising their experience of understanding and appreciation of creation theology required an unexpected exposure and expression of their lived meaning (van Manen, 1990). Van Manen (1990) suggests that in order to understand an individual's experience it is important to appreciate that a depth of meaning cannot be grasped in its fullness because it cannot be completely separated from all of life's

experiences. It is recollective and reflective. Therefore, the researcher is required to analyse the data in such a way that the essential aspects of the 'experience' are brought back into focus so that it is possible to recognise the 'experience', which allows for interpretation of the experience. Chapter Seven continues the exegesis of students' experience of spiritual ecological consciousness towards ecological conversion. The students were older and the teaching and learning took place over a longer period of time, therefore, they had more time to reflect on their lifeworlds which they brought to their interviews.

## CHAPTER SEVEN

### EARTH SPIRITUALITY STUDENTS TELL THEIR STORY

#### Introduction

The focus for Chapter Six was Year 10 students studying a six weeks topic on *Creation Theology*. Chapter Seven explicates the experiences Year 12 students who were engaged in a semester study of *Earth Spirituality*. The research question to be addressed in this chapter is:

- What is the experience of students who have participated in studies that focused on spiritual ecological consciousness towards ecological conversion?

The research question is supported by three sub questions:

- From a conceptual understanding, how did the experience of teaching and learning engage the students in contemplating their interconnectedness, interdependence and interrelatedness with the natural world?
- From an affective understanding, how did the experience of teaching and learning engage the students in order to understand that the Earth is sacred?
- From a spiritual understanding, how did the experience of teaching and learning engage the students so that they could develop their sense of ecological consciousness?

This chapter begins with a brief introduction of the students who have participated in a course of study designed to address spiritual ecological consciousness towards ecological conversion followed by a thematic analysis of the participants' interview transcripts. Given that the students had agreed to be involved in my research, I felt assured that they would be willing to share their experiences with me. For some students, what they experienced expressed their notion of earth spirituality but also their lack of ability to articulate their experience. In other words, some sought to define earth spirituality rather than express their

experience of it. Jenny, Amelia, Liz, Paul, Jasmine, Jason, Stephen, Damien, Cynthia and Mia are the pseudonyms given to the ten students who participated in this research. I have included the students' pseudonym at the end of each quotation to personalise each students' experience. A sample of the interviews is included in Appendix 3. Each response from a participant is numbered for referencing against the text included in the data.

In reporting the analysis and findings, I have organised the students' experiences under thematic headings consistent with van Manen's (1990) approach. By the time I came to interview the students the idea of a process had fermented in my mind and so the themes are presented in keeping with the schema as a process for ecological conversion which is set out in Chapter One and further explored in Chapter Two. There are six themes for the *Earth Spirituality* cohort because they experienced a more intense curriculum that allowed for a more in depth analysis of their experience. For the purpose of this thesis, I explicated themes that informed the research question.

In keeping with the ascending schema for coming to ecological conversion the students' experience of the environmental crisis is presented first. Even though this was not a topic within the curriculum it featured in the students' minds because they appeared to be more aware of the environmental crisis than the Year 10 students and some students chose to study *Earth Spirituality* because they were interested in the environment. However, the environmental crisis was indirectly referred to in the Cosmic Walk ritual and in a number of the other topics, for example, the Catechism of the Catholic Church and the documents written by Pope John Paul II.

### **Theme 1: Experience of the Environmental Crisis**

Within the unit activities the notion of awakening to the plight of the Earth through studying *Earth Spirituality* called for self-evaluation as to how the students perceived their own 'footprints' on the Earth. The students realised that their actions have consequences for

the long-term survival of the natural world. Paul shared his reflections as he drew on his personal experience of awakening to his life-world. He was concerned about “How fast this planet is going. I wasn’t aware ... but I suppose this year actually, doing this subject, is the first I have noticed it. This year with you teaching us this semester has opened my eyes to what is really actually happening” [Paul - Interview 2: Response 2].

### **A sense of the need for empowerment**

A sense of the need for empowerment was reflected in the students’ comments. They had seen or heard about what was happening to the Earth and they were deeply concerned about their own inabilities to meet the challenges that they observed in their life-worlds. Their words hold within them a sense of frustration and anxiety. Jenny expressed her at-oneness with the Earth. She felt empowered by her ecological wisdom and expressed her need for connectedness and her desire to experience a relationship with the Earth not simply because there is an environmental crisis. She believed that, “we are in an environmental crisis ... we need to learn how we can bring back to life our Earth, so it will be there for us and we can live harmoniously with it and everything in it. So even if there wasn’t an ecological crisis I would still be into this. I still feel really connected. I just love it and every breath of air that you take is all interconnected with you” [Jenny - Interview 1: Responses 6, 7].

Jasmine, too, made the necessary connections that empowered her to make a contribution towards sustainability, even though she was critical of those who could really make a difference. She argued that:

... it’s surprising but just those little things you read about when we research things, it hits home. You think ... oh, maybe we should be doing something ... and you think maybe I’m too little, I can’t really do something. Well, you know, people are meant to be looking after us, they should be doing something. The Government should be doing something [Jasmine - Interview 5: Response 4].



Jason also expressed his anxiety over environmental destruction and referred to the logging in Tasmania and his feeling of a lack of empowerment to do anything about it:

You just feel like ... because we're pretty into this, especially Tasmania [logging]. We did go to a rally last year ... you feel like something is being taken away from you. You think ... 'Why are you doing that?' You just get so angry and upset about it, just gutted ... probably because I am interested in the ecological crisis. I'm interested in that and I want to help [Jason - Interview 3: Response 10].

Stephen also expressed his emotion about the logging in Tasmania, "...well, it's not right really. I feel angry and annoyed that those trees [old growth forests] have been there longer than anyone else and they have as much a right to be there as we do" [Stephen - Interview 8: Response 10].

A sense of 'all is not well on the Earth' was expressed in the students' comments. Their awareness of environmental depletion surfaced in their litany of doom and gloom reflections on their lived world of unsustainable use of the Earth's finite resources. The students expressed how their understanding of the demise of the Earth was really affecting them. Paul expressed his concern for the long-term survival of human life on Earth:

I always think how would it be for my future generations to come here, and come to a place that has no trees and the oil is gone and all the natural resources are gone or practically died out. All there will be in a generation or two is going to be full on worrying about water, like it is in ... we have to worry, and that is what it is going to be like for everything. So I don't want future generations having to deal with things like that, constantly. They won't be able to live life. Generations that won't be able to live. But then when you refer back to the Catholic part of it 'God created the Earth in seven days and nights' and this confuses me. Some days I get negative about our planet and Earth, I think right it's going to die out [Paul - Interview 2: Response 6].

Damien was also concerned about the oil situation and global warming and how that will affect him. He shared his thoughts regarding environmental issues that had affected his peace of mind:

Lately, I think it is the big oil/petrol prices. We don't have enough oil; we're not using our resources properly in that respect. I have always been interested in global warming so I'm always wanting to know what is going on in the world, and I think it is really interesting when I read about twenty years time, we're not going to have what we have now. It does affect me, and I think it is interesting [Damien - Interview 4: Responses 2, 3].

Jasmine also made the connections between her lived experience of her life-world indicating her developing ecological consciousness. She commented on a number of environmental issues that concerned her:

I suppose it's to understand about what is actually going on like the recent hurricanes. Like the ice caps have melted, so that means the sea levels have risen, which means that water has risen and that's what has made the flood. So by the ice caps melting we've had to pollute. I'm conscious that by just taking a plastic bag from the supermarket I'm contributing, do you know what I mean? I've been woken up to the fact that ... I'm now more aware of my conscious steps that I'm making [Jasmine - Interview 5: Response 11].

Mia also expressed her feelings of disharmony regarding the physical condition of the Earth when she explained how she was feeling, "I was really conscious about Earth and how long it's going to last ... Earth Spirituality [ the unit ]brought it out...it sort of made really good sense to take care of the Earth" [Mia - Interview 9: Response 1].

### **Summary**

The students' reflections on their experiences of the environmental crisis expressed their life-world, that is, their hopes and dreams as well as their anxieties for their future. It

was turning to the subject that really interested them, (the environmental crisis), that was of interest for this thesis. Studying *Earth Spirituality* provided the students with an opportunity to reflect on their real world, one that they had generally not previously explored especially their involvement in it. The students began to make connections between the relevance of their lived experience of the global environmental crisis, such as diminishing oil, changes in weather, loss of forests, prospects for future generations, global warming and what they had learnt in class. Studying *Earth Spirituality* gave the students an opportunity to vent their concerns for the environment, which is a necessary attribute for ecological consciousness leading to an ecological conversion. There are elements of ecological conversion in their comments emanating from their lived world of concern for the health of the Earth. The students' experience of the global environmental crisis suggests that youth are deeply caught up in the environmental crisis as argued by McDonagh (2007) and Tacey (2004). They felt they were not bystanders, but insiders, regarding the impact of the environmental crisis on themselves.

## **Theme 2: Experience of Ecological Consciousness**

Ecological consciousness is the second movement as illustrated in the schema and the students were able to articulate their feelings about the Earth. Ecological consciousness requires an empathy with the plight of the Earth. Jasmine wanted to share her misgivings about her footprint. She also expressed her alarm over ignorance of the consequences of human behaviour when it came to despoiling the Earth. However, along with her feelings of trepidation about the state of the environment, there were also feelings of empowerment. Having engaged in the teaching and learning for *Earth Spirituality*, she felt that education had helped her to come to grips with the impact of human activity on the Earth. She argued that:

Well, probably the biggest thing I have learnt is how we leave 'footprints'. Do you know what I mean? By us being here, we can't really tread lightly, we haven't really treaded lightly amongst the Earth but we've damaged it in a way that it may not be able to recover ... but it's from now that we are able to change our ways so that it doesn't get hurt anymore, there's no more destruction and stuff, so that we are not hurting it as much as we did. We didn't know because we were just starting off by

chopping down the trees and we didn't know what the effects were going to be. So we are learning [Jasmine - Interview 5: Response 3].

Again, there is an experience of introspection, an examination of conscience about the collective behaviour of humans. The observations of her life-world dominated her comments. Jasmine realised that her behaviour had consequences and her actions had not been purposefully reflected on until studying *Earth Spirituality*. Jasmine highlighted ignorance as an excuse for destructive behaviour which resulted from an examination of her culture regarding humans' treatment of creation.

The students' responses illustrated ecological consciousness as connectedness, that is, the awareness of their oneness with nature. For Cynthia, connectedness was associated with the way humans treated the Earth. "I did take away how we mainly treat the Earth and the way of improving it, and how we are connected to the Earth. We are all connected to the Earth basically" [Cynthia - Interview 3: Response 2]. Damien was steadfast in his view about connectedness when he explained his perception of Earth spirituality. "I believe Earth spirituality is about the connectedness with us, as human, to the Earth because we all came from the same source. I think it's about how we feel, how we are connected and how we relate to everything" [Damien - Interview 4: Response 1]. Similarly, Jason's comprehension of connectedness is one of correct balance in his relationship with nature. "It's not just so much as a human dictatorship over the world, but rather realising that things are just as important as us in the world" [Jason - Interview 3: Response 1].

### **Personal experience of connectedness**

Personal experience of connectedness to the Earth was manifested in the students' stories of their life-world. Their reflections shared something significant about their desire to make sense of what they had learned in class and what they experienced in their lives. Jenny expressed her heightened awareness when engaging in normal activities in her life. She confessed, "...definitely, just knowing now, that even when you're in the garden and going

through the soil and digging up things, you can feel there is a connectedness” [Jenny - Interview 1: Response 7].

Paul offered an example of his developing ecological consciousness by assessing observed behaviour that he believed impacted on the health of the Earth and its dependent natural world. He offered the following example:

It was only just this morning when a girl on the bus had a ‘cheat sheet’ for her Maths and she had used one side of the piece of paper and there was another side on another sheet of paper and she was sticking them together. I said ‘hey, you’re just wasting two sides of the paper’, and she said ‘what does that matter?’ I said ‘it costs, chopping down trees, you may think it’s not much, but every day...’ So, yeah, that’s what I have learnt, we are tearing down our planet and getting rid of it at a very fast rate [Paul - Interview 2: Response 2].

Paul also recalled experiences in his life that previously were not reflected on as ecological connectedness. He thought about nature and what it was that drew him to it and his experience of it. He offered an example of an experience with his family:

My family have always gone on lots of family holidays. They are not holidays when we go into the city and do city things, they have always been a couple of days with my old man camping up the river, or whether we go to the beach somewhere. We don’t like big places, we like to be in our own little area, or environment. It’s places like that, the untouched country, that you notice the environment and I feel connected to it in a way that I can appreciate it, appreciate nature. One time I was up fishing with dad on the river, and I was putting a yabby on the hook and one of the fishing rods on the right of me had a bite. I quickly put the yabby on the ground and the next thing I turned around and a kookaburra came down, picked up my yabby and got away with it. So there’s all different ways to appreciate nature and that’s what I find and how I’m connected to it [Paul - Interview 2: Response 3].

Jasmine shared her ideas on connectedness when she recounted her walks home from school, which were influenced by her experience of Earth Spirituality:

I believe in the Christian views mainly, and just to gain a new aspect of knowledge of another type of religion. It is all about Christianity but it is a different aspect. There is a spiritual connectedness to the Earth. I'd walk home from the bus stop thinking nothing, everything, just school and whatever and get home and do what I have to do, but now I'm actually walking home thinking 'Gee isn't this nice'. I feel more connected to the Earth [Jasmine - Interview 5: Response 5].

She continued the theme of connectedness with examples of how her thinking had changed, and how she felt about her new experience:

To get pleasure you don't have to have the nicest clothes you can just be here and absorb what is around you. I feel like, now I have done this [Earth Spirituality] I am now more a spiritual person and things don't faze me so much. I'm more calm. I feel a lot calmer, because you know that even if I don't make it to that appointment or like I can't make it to something, it's not going to be the end all, but before it was. So it's changed my living really [Jasmine - Interview 5: Response 5].

What begins to emerge from the students' comments is a concern for the Earth and caring for it in order to nurture sustainability for future generations. As Paul explained, it is "... knowing the place we live in and an understanding of what it means to care for that environment and sustaining the environment for future generations" [Paul - Interview 2: Response 1]. Amelia expressed her apprehension about the Earth and the need to preserve it for its own sake as well as for the preservation of human life. She believed "it is all about saving the world for us to live as humans not for [so] the world will live, because the world will always live without us, so, understanding that" [Amelia - Interview 6: Response 1].

Stephen was also moved to consider the health of the planet after participating in the story of the universe "... probably an understanding of the creation story and the universe's creation story and how we came to be on Earth and how we relate to the Earth and how we treat it" [Stephen - Interview 4: Response 1]. For these students, the notion of well-being was expressed through their sense that the Earth is in crisis and they are involved in it. This theme highlighted their immersion in environmental consciousness as the students expressed how they really felt about what was happening to the Earth.

Mia felt very comfortable with her position. She considered her actions and their consequences from an awareness of her importance in the big scale of life on Earth. Her understanding of connectedness empowered her to make sound decisions for the long-term well-being of the Earth. She was very comfortable with her views about caring for the Earth:

I felt pretty good because it just shows that everything is connected and it doesn't matter what you do it has a reaction. We are just like paint on a ten-story building it just shows that the Earth has been here for ages and we are just a little speck on it. It all just coincides with each other I find. You have to look after one thing but also look after another thing. With the Earth you have to make sure that's right but then also how you feel and just make sure you're not doing anything to harm [the Earth]. [Mia - Interview 9: Responses 4, 9].

### **Summary**

The students endeavoured to convey their understanding of connectedness to creation. They offered examples from their life-world about gardening, family holidays, fishing in a river, and walking home from school. There was a desire to correct the balance in their lives by respecting the Earth story and the human story of interdependence on the natural world. There was also interplay between their new understanding of their true place on the Earth and how they choose to live. What is again manifested in their comments is a genuine concern for the state of the Earth especially with reference to their futures.

### **Theme 3: Experience of other Traditions of Earth Spirituality**

This theme was included because the students were particularly interested in the Buddhist and Australian Indigenous spiritualities of the earth. It is an important theme to consider within Earth Spirituality as included in the schema. A member from each community was invited to share their traditions appreciation of the earth. As it was one of the last topics studied in class, the experience was uppermost in the students' minds at the time of

the interview. Their experience of the guest speaker's views on Earth spirituality left the students with a sense of gratitude for having placed Earth spirituality on the world stage rather than just something that Catholics or Christians believe about the sacredness of the Earth. Jenny said that "just knowing that we are on the land of their [Aboriginal] ancestors. You can tell that the ancient Aboriginal is interconnected with the trees and plant life and the animals, all interconnected. I think that now. As European Australians, we are definitely learning there is more of a spiritual nature" [Jenny - Interview 1: Response 9].

Paul was also very appreciative of the experience of learning about the Buddhist and Indigenous traditions. Exposure to other cultures and their Earth spirituality was significant for Paul and he began viewing his learning about Catholic Earth spirituality in a more universal context.

In a way, through this course you've provided us with the [Buddhist monk and the Indigenous woman], you've shown us how other cultures have Earth spirituality, so in a way I've connected with what you [teacher] have shown me, but you've also shown what these other cultures are into, so in a way, even though they do have different views to me, I'd like to appreciate their views. That is a big thing I have learnt about appreciating the spirituality of the Earth [Paul - Interview 2: Response 4].

However, Paul expressed his dilemma in combining other cultures understanding of Earth spirituality with his own tradition. "Exactly, what you have been taught, you think that's right, but when you hear someone else's opinion, and how they preach and practice, you think, oh, well, hang on, that is a pretty good point. There's no line saying no, you can't. You can draw from other cultures and they both have some good things to say. I have taken some of their things in and brought it into my life too" [Paul - Interview 2: Response 5].

The students spoke about their sense of awe at the Earth beginning with the creation stories and newly acquired knowledge of their relationship with the Earth, especially their spiritual relationship with nature. They also expressed their gratitude in learning about other cultures' connectedness to the Earth through their spirituality. This appreciation seemed to take the study of *Earth Spirituality* beyond the Catholic tradition and placed spirituality



firmly within the realm of what it is to be human and in community with the rest of creation. Jenny explained it this way:

There has been so much. There was learning how we came from stardust and that was very important but I think more to talk about how we are, as all interconnected. To me, that's just mind-boggling that all of our spirits together, like our mother Earth, I think is the most important thing I have learnt. It's hard to put into words ... definitely the different creation stories and the Aboriginal way and how it is all interconnected, so that relates back to our own religion [Jenny - Interview 1: Response 3].

Jason, with reference to the visit from a Buddhist monk, expressed Jennys' feelings more fully because he was deeply impressed by Buddhist Earth spirituality. He exclaimed, "Wow! That is so powerful to think that he feels so strongly about this kind of thing ... he was a bit more passionate about Earth spirituality rather than the Catholic religion where it's not so concerned with environment issues" [ Jason - Interview 3: Responses 4, 5 ]. Jason did not feel that issues of the Earth had been part of his faith tradition. For example, he argued, "... from my experience with the church it's not so centred on that, and I just thought, Wow! How awesome is that? When you think that they are really passionate about that kind of thing" [Jason - Interview 3: Response 5].

Jasmine was pleased to have experienced other insights into Earth spirituality. She commented that "I've always been interested in Aboriginal history, so just to incorporate that with Earth spirituality and how they react and interact with the Earth and how it means so much to the Aboriginal people in their culture" [Jasmine - Interview 5: Response 2 ]. The exposure to other cultures Earth spirituality really helped her to focus on her own spirituality. For Amelia, listening to others speak about their cultures spirituality prompted her to ask "what do Catholics believe? Looking at other cultures has made me open my mind to nature" [Amelia - Interview 6: Response 4].

## Summary

The visit of the Buddhist monk and Indigenous woman had an unexpected influence on the students. Providing the students with another voice for the Earth generally had a profound effect on the students, and took their studies of Earth spirituality to a new level of engagement. The students who were largely immersed in an anthropocentric culture were exposed to cultures that were Earth centred. Their comments highlight the importance of exposure to the way other traditions think about the Earth and connectedness to creation. The realisation that other religious traditions are deeply immersed in their relatedness to the natural world and hold a deep reverence for the Earth was gratefully received by the students. The students were able to see that Earth spirituality is embodied in other traditions as foundational, whereas they found themselves questioning the Earth spirituality of their own tradition.

### **Theme 4: Experience of the *Earth Spirituality* Class**

The experience of the *Earth Spirituality* class explored the students' feelings about having been exposed to a different way of viewing themselves in relation to their world. Their introspection regarding their class experience expressed something of their awakening to Earth spirituality as a way of being in the world through viewing themselves as connected to all creation. What is evident in the personal responses of each participant was their enjoyment of the subject. For Jenny, "it has been a fantastic experience. I loved it. I like learning more about how everything is interconnected" [Jenny - Interview 1: Response 1]. Jenny spoke positively of her experience and she was able to reflect on her previous experience, which could have been influential in her choice of this religious education course. She commented, "I have really enjoyed it having spent a whole semester learning it ... definitely, I've always felt there is a lot more to just people living on the Earth ... that we are all connected" [Jenny - Interview 1: Response 1, 2]. In contrast, Jasmine considered the class to be new to her although she had previously associated earth spirituality with indigenous spirituality. She explained her position, "When I chose the subject as my R.E. elective for the

2005 it was fairly new to me. I did not know what it was going to be about. I had not even come across earth spirituality. I had heard about the Aboriginal side of it, like the spiritual side, but never thought it was going to involve the whole course outline like that” [Jasmine - Interview 5: Response 1].

Amelia drew on her experiences and made connections between her environmental science studies and her journey to a spiritual way of viewing connectedness to creation. She confessed, “I really liked doing it. I suppose it’s a different level because I have done Environmental Science and I learned all the scientific sort of knowledge about fossil fuels and all that sort of thing and now I come here [Earth spirituality classes] and it’s on a different level, about all creatures having spirits and everything should be treated with respect” [Amelia - Interview 6: Response 1].

Liz offered a philosophical exegesis of her study of Earth spirituality. She was aware of where the study of *Earth Spirituality* had brought her regarding her place in the big picture of life in relationship with the rest of creation.

How do I understand ‘Earth Spirituality’? I think it is how you view the Earth. If you view it as the Earth and humans depend [ence] on each other ... if you view it that Earth is only there for humans to use all the resources and that’s all it’s there for and how you view the balance of everything. Where you put the importance of the Earth and humans or whether you include all living beings including Earth with the same importance, or whether you think humans are more important [Liz - Interview 10: Response 1].

Liz shared her beginnings of Earth spirituality as she presented her need for the right relationship with the Earth in questioning her anthropocentric view of the Earth as a resource for human needs.

## Summary

In general the students' experience of the *Earth Spirituality* class was a positive one as they appreciated the opportunity to be in a class that exposed them to a different way of being in the world. In responding to the interview question to explicate their experience of studying *Earth Spirituality*, the students appeared to associate their learning with their lifeworld that firstly included making a choice to study *Earth Spirituality*. This decision was, for some students, prompted by their prior interest in the Earth and the need to resolve questions about their relationship with the Earth. In reviewing the students' experience of *Earth Spirituality* the beginnings of ecological conversion can be gleaned as the students were open to examining their lifeworld.

### **Theme 5: Experience of Spiritual Ecological Consciousness**

Spiritual ecological consciousness combines the experience of ecological consciousness and earth spirituality. It is also the experience of accepting that the earth is sacred in itself and because it belongs to God. In Theme Five, the students endeavoured to express their experience of spiritual ecological consciousness through reflecting on their lifeworld and also their satisfaction in their acquired awareness of interrelatedness. Some of the students convey a sense of empowerment through their new understanding of their spiritual connectedness to all creation and welcomed the connection. There was some evidence of a sense of awe and wonder as they began to view their surroundings through a different lens and to look beyond the confines of their Catholic appreciation of the Earth. Although they struggled with the concept of spiritual ecological consciousness they commented confidently in order to convey their new sensitivity to this previously unexplored phenomenon in their lives. For Jenny, spiritual ecological consciousness was simply appreciating nature as it surrounds her. It meant looking at creation through different eyes and experiencing it in a new way.

I think definitely it means a great deal and especially if you're learning about the different creations, that there is a spiritual nature to everything around us. Even if

you're just looking at the trees outside ... you can feel it when you're out in nature not surrounded by technology. You can feel the spiritual nature; it's fantastic...anywhere in the garden. Just knowing what is around you is just growing from just in the Earth. It also has like a kind of spiritual being as well. Just even sitting on the grass or flowers or watching the bees and butterflies go past you know it's a fantastic creation [Jenny - Interview 1: Responses 8, 10].

Jenny continued with expressions of delight of having had the opportunity to learn about spiritual ecological consciousness.

It is definitely a fantastic feeling, especially learning it so young... that I can continue to grow with it after I finish school and everything. It makes you more aware and more connected about everything, every single thing you do, like everywhere you walk, what you use. You just feel it when you're walking anywhere, definitely the spirit and how it's always going to be there and you know even years after this it's never going to go. It's definitely a good feeling to grow [Jenny - Interview 1: Response 11].

Jasmine attempted to communicate her sense of spiritual ecological consciousness by relating an experience she had with her mother. In an area where lack of water is a serious issue, rain is a phenomenon in itself and one that Jasmine was happy to explore. She clearly wanted to share what she thought was a spiritual experience for her:

Well yeah, every day we take the bus to ... and every day we see the same McIvor Creek and it's just bone dry and then a few days of rain and it is absolutely chock a block, like it's full, so that was really spiritual to me, that it only took that long, a few days of rain to get it really flowing. So that was really spiritual and I actually said 'Oh God, why don't you just make it rain all the time!' So that was a really spiritual moment for me because we were in the car and I'd seen it on the way in and it wasn't that full but then on the way back home it was absolutely chock a block and mum said to me 'Look at the creek'. I said 'Oh my God' and we both sat there and thought it is really amazing. I'm not sure if it is spiritual moment or just realising it, sounds spiritual anyway [Jasmine - Interview 5: Response 15].

When Jason was asked about his understanding of spiritual ecological consciousness, he attempted to relate it to his experience of coming to grips with his appreciation of the environmental crisis and its connections to spirituality. He saw it as another aspect of the generation of harmony between the spiritual and the ecological:

It's another aspect, I suppose you can say. To me it means that, yes the world is deteriorating, but then you have to think that everything is living as well. It is not living as just a physical sense but as a spiritual sense as well, so if it is deteriorating then you are conscious of it. If you're 'ecologically' and 'spiritually' conscious then you know that things are living and have an importance as well. Do you know what I mean? [Jason - Interview 3: Response 6].

Liz approached the experience of spiritual ecological consciousness from a very personal perspective. She expressed her concern about being spiritually and ecologically conscious in her life as a conflict between what she believed about herself and her continued relationship with her boyfriend.

Well, it makes me think twice about everything, like my relationship. Can you use personal example? With my boyfriend, he is very materialistic and he likes cars and all that stuff, and it makes me think twice about staying with him just because he doesn't care. I try to talk to him and try to get him to see my way, to see there is an ecological consciousness coming or already here, and to see things less materialistically, and to find a spirituality [Liz - Interview 1: Response 4].

Paul admitted that "I'd like to know more. I don't know a whole heap about it. Oh, it has to be doesn't it?" [Paul- Interview 2: Response 8]. Damien also tried to grapple with his thoughts, "I haven't really experienced the 'spiritual' side of the Earth. I suppose I do because I'm alive and I've got feelings and everything I do revolves around the Earth. I suppose everything comes from the Earth and we all connect to it physically and spiritually because we're all from the same thing" [Damien - Interview 4: Response 4, 8].

Jasmine focused her response on the importance of spirituality in her life "... living and spirituality interact because without the spiritual side of things, things just don't run smoothly" [Jasmine - Interview 5: Response 17]. She feels that "... we need a spiritual sense of the Earth so we have something to believe in and so that we can live and grow because if we didn't, we would just be normal and have nothing to believe in and nothing to hope for" [Jasmine - Interview 5: Response 17]. Amelia also made the connection between her spirituality and her commitment to the Earth. She believed that thinking of the Earth as spiritual is directly related to caring for the Earth, "probably as having a 'spirit' and thinking about the environment around me. That's probably what it means to me. Making sure everything is alright and keeping it that way for future generations" [Amelia - Interview 2: Response 14].

Jason contended that "I just kind of think, yes! It is because God made everything, he didn't just make the Earth. I don't know" [Jason -Interview 3: Response 3]. Even in his uncertainty he argued, "think it's a selfish way to think that everything revolves around us when really the Earth is part of God's creation too, not just us" [Jason - Interview 3: Response 3]. However, Mia was quite clear about her experience when she explained that, "It just showed that wherever you are, everything has spiritual meaning, like the Buddhists believe that everything has a spirit and that just puts it in perspective ... everything will have a reaction to it" [ Mia - Interview 9: Response 7]. Liz identified her sense of spiritual ecological consciousness with the Buddhist tradition. "Ecological awareness would just be the physical implications of everything, but the spiritual awareness would be like the 'Karma' of nature and will you do the right thing that brings Karma to you." [Liz - Interview 10: Response 5]. Liz continued with an example in her own life. "Yeah, I have a lot of friends that I know that think like me. I know a lot of people who have a spiritual ecological consciousness. I think you have to have some sort of spirituality and be open minded and compassionate" [Liz - Interview 10: Response 9, 10]. Stephen added a further dimension when he drew on his learning from his Catholic tradition. "Probably the more religious side of it and how our religion joins it up ... how Jesus related to the Earth ..., like you're a part of it" [Stephen - Interview 8: Response 4, 5, 14].

## **Summary**

Acquiring spiritual ecological consciousness seemed to make sense for the students. Their experience of spiritual ecological consciousness was expressed from evidence of their lifeworld, as much as their classroom experience, as they related their stories. They generally felt good about their awareness of the experience of spiritual ecological consciousness as they related their own assessments of their ecological self. They conveyed their openness to recognising that they are spiritual and concluded that some of their experiences in life are spiritual especially in the context of the Earth. Their desire to be spiritually and ecologically conscious is further evidenced in their experience of ecological conversion.

### **Theme 6: Experience of Ecological Conversion**

Ecological conversion is a process as explored in Chapter Two. It steps through the hierarchy of the schema and therefore all the levels add incremental experiences towards ecological conversion. Therefore, it requires becoming ecologically conscious of environmental issues, appreciating that the Earth is spiritual as they themselves are spiritual. Some elements of spiritual ecological consciousness are present in their comments even though the students found it difficult to focus on the Earth as belonging to God and they are called to stewardship of the Earth. This theme is a summing up of the experiences of the students' moving towards ecological conversion in their understanding and commitment. The students speak of their new perspectives regarding their place in the Earth story and are motivated to action for sustainability even if tentatively. They also express their commitment to ecological conversion in a number of ways especially through awakening of their connectedness to creation and personal desire to care for the Earth.



### **Developing a new perspective**

The students shared a new perspective about the effect of human activity on the Earth and their newly discovered place in the story of the universe. They again speak about their anxiety over the health of the Earth especially noting that Earth spirituality and therefore commitment to environmentally sustainable behaviour does not come naturally to some people. What concerned Cynthia was “mainly the effect humans can have on the Earth, and that we really do have to respect the Earth”. She understood that “you can’t just keep pulling out and providing for us, we just keep taking and taking” [Cynthia - Interview 3: Response 6]. Cynthia is adamant that the way we consume the Earth’s resources “really does have to change, hopefully in the near future” [Cynthia - Interview 3: Response 6].

For Mia, “everything is just put into perspective. How we’ve been here a long time it seems, but in proportion with the Earth’s being here, it’s just like a layer of paint on a building”. [Mia - Interview 9: Response 14]. However, Liz believes that ecological conversion is not something that can be learnt in a classroom. Liz was speaking in reference to another member of the class who she believed was in denial of the value of the subject.

In my view, it is not something that can be learned. I think that if somebody tries to teach you, you are either going to get it or you’re not. Some people have the ‘spiritualness’ or whatever and understand what it is all about and some people don’t. I think you can teach facts and figures but I don’t think you can teach people compassion for this subject [Liz - Interview 10: Response 1].

This was one of the anomalies of the interview process, because to my surprise, the student Liz was referring to actually agreed to be interviewed. His attitude in class was so different to his attitude during the interview. This would be an interesting study to pursue. Liz conveyed something about the challenge from peer pressure to accept a new way of being in the world, and therefore, undergo an ecological conversion that requires personal commitment. Her comment has implications for Gardner’s (1999) levels of naturalist intelligence that we all come to an appreciation of the natural world through our giftedness or experience which involves a process.

### **Evolution of ecological consciousness**

Evolution of ecological consciousness is important to ecological conversion as it relates how the students perceive themselves as part of the problem, and therefore, they feel that they must also be part of the answer to the environmental crisis. The students expressed their own fears about change to their thinking and lifestyle. They drew on examples of their life experience and it became clear that teaching for environmental awareness does not begin with a blank page. Their life-world had given them a sense of guilt, because they saw themselves as connected to their families, to their life experiences. There was a feeling of personal struggle to align the reality of their lifeworld with what it should be in order to believe in good outcomes for their future. A perception of being overwhelmed by their new knowledge of cosmic beginnings and the reality of lived experience is present in their comments.

Liz was inspired by her discovery of ecological consciousness and stated that “the change in my thinking came from when we were talking about the big picture and the cosmic stuff because it makes you think it is all so big and there is more out there than just your world” [Liz - Interview 10: Response 3]. She was also inspired by “looking at other cultures, the way they treat the Earth with so much respect and the way they understand it. Looking at all the religions and stuff and finding out that white people don’t have all the answers and we don’t do things right concerning Earth. Other people view it differently, different religions, it makes more sense how they view it” [Liz - Interview 10: Response 3]. The knowledge that other religions have a more humble attitude to the Earth seemed to make her feel discontented with her own tradition.

Jasmine offered a case study from her lifeworld experience regarding her evolution of environmental consciousness. She expressed her confusion by sharing some of her own family history and tried to reconcile her new position with the one she was born in to:

I’ve got mixed emotions because, for one, my grandfather and his grandfather before that made a living from that [chopping down trees], and it has basically made our

family what it is today. We own property ... do you know what I mean? It has given us basics to survive but on the other hand ... that was that era, and we have changed. They knew no different. I do have mixed emotions [Jasmine - Interview 5: Response 9].

She spoke about her mixed emotions and shared her personal conflict between livelihood for her family and justifying the destruction of trees, which she believed are so necessary to the health of the air. However, she was glad when others protest on behalf of the Earth. Jasmine engaged in some self-introspection.

Present day, now, I think it's probably not the best thing because, you know, it's hard to describe. I was happy when they [environmental activists] protested about it [chopping down old growth forests] because it means that someone actually cares and so someone is caring about this forest. But then, I am doing nothing really, and I'm sitting back having no input whereas I probably should [Jasmine-Interview 5: Response 9].

Jasmine continued her dialogue about her involvement in what she perceived as a serious challenge to her lifestyle. She was not in control of her situation, particularly as a family member, but she still feels angst about the destruction of trees on her home property.

We should care if the trees get cut down because we'll never have the same trees again, but then again I helped to do that, because my grandfather and his grandfather before that cut down the trees. It is strange to look back on the history, but now we have done that, we can now look and think, by cutting down these trees we have air pollution and we can see what the aftermath is. It is quite hard but it does touch you. We know we shouldn't be doing it, but we still do [Jasmine - Interview 5: Response 9].

### **Motivation to action**

Motivation to action encompasses the students' experience of what they can do for the environment but there are also futuristic comments that conveyed something about the limitations they experienced in addressing environmental issues in their lives. There was the conception that they are very limited in how they are able to personally influence

sustainability. Reflecting on his experience, Paul examined his conscience as to his degree of motivation to action. He maintained that “you get in that kind of mind-frame and you think surely, maybe it doesn’t matter! But then you have to think, if it does, we have to do what we can while we’re here and this is the time I’m living, so why not” [Paul - Interview 2: Response 6]. Cynthia also expressed her desire to be more ecologically conscious, as she was aware of the consequences when she does not act in an Earth-friendly way. She reflected that “after doing “*Earth Spirituality*” I have developed a greater respect for the Earth and I suppose with littering, simple things like that, I wouldn’t have taken much notice of that before and now if I go to drop rubbish on the ground I actually think about it...what is could do to the Earth and the effect that it has on the Earth” [Cynthia - Interview 7: Response 3].

Damien pointed out that he was more conscious of his impact on the Earth and he was prepared to make changes in his lifestyle that would make a difference. He offered an example of ecological conversion that led to action. “I’m respecting things more like the whole “green bag” thing and sharing cars with other people just to save rides and stuff. I was always curious about the Earth before I came into it [Earth Spirituality] and now I’ve learnt more about it” [Damien - Interview 4: Response 15]. Amelia’s response was probably more realistic because she expressed awareness of her limitations to actually do things that are significant. Amelia’s position is “not right now because I think for that to happen I would have to have my own house so I could put native trees around my house. That is something I would like to do in the future. Not right now, but I think I will when I look back on it” [Amelia - Interview 2: Response 2]. Amelia was also influenced by her knowledge of environmental science. She expressed strengths from both courses. Environmental science gave her the knowledge base and Earth spirituality gave her a reason and a will to commit to making a difference. “Well, definitely, in this course I have learnt how it would help the environment and the ecological crisis but in Environmental Science I learnt how to do it. So, I have learnt how with your house if you point the windows a certain way the sun will come in and warm it in the winter and in the summer it changes. Then I got to this course and I thought, “Oh, I can do this!” [Amelia - Interview 2: Response 13].

Liz is under no illusions about the commitment she was making to the environment. She believed learning has helped, and it certainly challenged her, but it was not going to be

easy for her. “Well, it’s all very good to learn about these things but it is very hard to influence your life because you have to change everything. I have changed some things but then there are others that I just can’t do. But I’d like to change them in the future. I think it is good to keep in the back of your mind always ... this sort of topic, it’s a story from your heart” [Liz - Interview 10: Response 11].

Jasmine explained that she had not been completely converted but felt she was putting her ecological life in some sort of order and enjoying the challenge. It was her way of expressing her connectedness and making changes to her mindset through a deepened awareness. “Well, I haven’t turned over a new leaf but it does make me realise things are different to what I thought. As a kid ... I suppose it’s all about maturing ... as a kid you think ... If I don’t have that item I’m going to die but now ... all the things happening in the Earth kind of make your mood, if you know what I mean” [Jasmine -Interview 5: Response 6]. For Jasmine, the way she perceived the natural world added a new dimension to her life:

Yeah, so if things around you are stormy or whenever you kind of feel angry a little bit but if it’s a beautiful day and you’re walking home you just feel on top of the world, even though I may not be, you still might have to do three hours of homework but you still might think ‘what a nice day to walk home’, if you know what I mean? It’s hard to describe really [Jasmine - Interview 5: Response 7].

In general, the students wanted to be instrumental in restoring the Earth. They were aware of how they had moved from an inert relationship to the Earth to one that inspired them to be pro-active in restoring the Earth. There was also a willingness to share their connectedness with the Earth, such as a gardening experience. Jason made the connections between his family experience of gardening and his learning when he explained that, “I love being outside and being in the garden. I suppose I got it from my dad because he always used to make us ... well not make us ... but have us out in the garden growing things and everything. Yeah, that’s how I feel” [Jason - Interview 3: Responses 8, 9]. Mia was also more conscious of her efforts to act for the environment because of her studies of *Earth Spirituality*. “It’s already shown that now I’m getting used to recycling more and we never used to around the house and getting more conscious with everything. Getting less products

that will produce more waste and using less plastic bags ... shopping and that” [Mia - Interview 9: Response 6]. For Mia, it was in doing thoughtful tasks that she believed could make a difference.

### **Awakening of self-appreciation of connectedness**

The students expressed a desire to be active in restoring the harmony and balance between themselves and nature. They expressed something of their previous life-world experiences of creation and made connections between what they experienced in class and what they had experienced in their lives. The awakening comes from a struggle between their non-reflected upon experiences and their new awareness of their responsibility to engage with their new understanding of their place on the Earth. Jenny was animated when she expressed her experience as an awakening. She believed that “having an awakening in the sense of knowing everything around you, it’s amazing, I feel different, connected to everything. From coming out of this age of not really being connected with to now knowing it is such an important structure in our lives” [Jenny - Interview 1: Response 5, 6]. Jenny’s awakening inspired her to action. She suggested that, “we need to learn how we can bring ‘back to life’ our Earth, so it will be there for us and we can live harmoniously with it and everything in it” [Jenny - Interview 1: Response 6]. Paul also maintained that, “I’ve come to appreciate all those different things I have learnt through the year with earth spirituality. I have come to appreciate the Earth more and treating it right” [Paul - Interview 2: Response 6]. Amelia’s thoughts focused on an exemplar of ecological consciousness when she remembered, “Oh, Pope John Paul. Yes, I remember his belief in nature and just wandering the hills because that’s what I like. I go up the river camping and that’s the sort of person I am. I just like nature and I go on walks and stuff” [Amelia - Interview 6: Response 8].

### **Personal need to care for the Earth**

The students articulated their feelings regarding the needs of the Earth, to care for the Earth for itself by thinking about their actions and the implications of ill-considered decisions

to take from the Earth. They made tentative steps towards coming to grips with their own real place on the Earth in relation to other creatures. Cynthia gave a macro-version of the need to care for the Earth because, as she concluded, if the Earth is not healthy then there is no 'us'. "Yeah, you have to think about, ... it's interesting, and I think everyone should learn about it because in the end it's what really matters because if there is no Earth then there is no 'us', no homework or a job ... the Earth and caring for it" [Cynthia - Interview 7: Responses 11, 12]. Damien was more focused on making right choices and considered the rights of the Earth before destroying nature "It is very much like us, if you destroy a tree you destroy something that is living. It is not right, but if you need to destroy trees for other resources, like, it's kind of like we have to kill food to eat it, but if we are just destroying trees to put property up, it's not practical" [Damien - Interview 4: Response 7].

### **Summary**

The experience of ecological conversion was one of desire rather than a complete change of heart. In responding to their learning, they generally felt somewhat overwhelmed by the magnitude of change required to undergo an ecological conversion. Each of the respondents conveyed something of their journey of self-discovery of the need to make a commitment to the Earth. They expressed their progress towards ecological conversion by enumerating the various ways they felt could contribute to restoring the Earth for example, being careful about littering, use of green bags, planting native trees, gardening and sharing transport. There are numerous expressions of the need for empowerment expressed through their frustration, anger, and desire to make right choices in the future. The students generally felt that they had not changed enough and wanted to be more pro-active for the Earth.

### **Theme 7: Experience of unit Earth Spirituality and Future**

The students' experience of studying *Earth Spirituality* is an important one to explore because their comments about the class say so much more than just their experience of the

class. Their stories encapsulate more than an intellectual and physical experience of teaching and learning about spiritual ecological consciousness towards ecological conversion. They were more concerned to express the impact of learning about earth spirituality on their thinking rather than any knowledge acquired in studying the course. Their comments echo their hearts rather than their minds because they tended to focus on the changes that had taken place in their lives, how their learning had affected them in different ways in particular. Their comments could find a home in the different stages of the schema for progress towards ecological conversion.

For Jenny, the challenge to engage in ecological consciousness and ecological conversion was gratefully accepted. She was very happy with where she found herself at the end of the course.

It will change a lot, possibly my career in the future, how I act, more environmentally friendly... the animals and nature, you're respecting it more and you know it is a part of you and your whole being. It definitely has impacted and will change how I am for the rest of my life, in a good way. I love it, how it has changed me this way [Jenny - Interview 1: Response 4].

Paul was more subdued in his sharing of the experience but he clearly wanted to confirm that the course had made a difference and he welcomed the experience. "Yes, in terms that you can appreciate it. You appreciate that every living thing is that, a 'living' thing and appreciating that you are caring for the environment. I've come to appreciate all those different things I have learnt through the year with Earth spirituality". [Paul - Interview 2: Response 6]. Jason said of his experience that he is "more aware of it. I just feel more part of the Earth now ... I probably already felt like that before this but it has put it in concrete for me". [Jason - Interview 3: Response 7].

The experience of the students in the *Earth Spirituality* class expressed an open-ness to embracing a new found awareness of their ecological consciousness, accepting that the Earth is spiritual and that they, as part of the Earth, are spiritual. For some students it had been a life changing experience and one that the students welcomed and wanted to share.



Jenny offered her affirmation, “Definitely, I know in my life I have been a lot happier with everything I have done since I know there is such an interconnectedness. Everything I do, I am more aware and it has been just fantastic” [Jenny - Interview 1: Response 12]. Paul reflected on his decision to study *Earth Spirituality* and he was glad he had the experience. “Last year going through the R.E. classes, Christian Art and Philosophy, and I thought yes, they are interesting but I care about the Earth, and I want to learn more about the spirituality side of things, so I thought this is me. So that’s what I signed up for and it suited brilliantly” [Paul - Interview 2: Response 10]. Cynthia was also exuberant about her experience, “Oh yeah, it changed my whole outlook, for the good, positive” [Cynthia - Interview 7: Response 13]. In contrast, Damien was more down to Earth and less committal with a “Yes” to the experience, but, “I’m not going to go without showers or anything” [Damien - Interview 4: Response 16]. Jasmine’s experience was more prophetic when she confessed that:

I personally think that ‘Earth Spirituality’ has taught me things that I need to know as a person ... it’s things you need to know so that you can either pass them on or keep gaining knowledge about it. I think that as I grow up, I will definitely keep gaining knowledge about the spirituality of the Earth, my connectedness to the Earth and my ecological consciousness of the Earth. I think it will not be something I will put in the back of my mind. I will have a consciousness ... Yes, I definitely see the ‘big picture’ and I definitely will try to pass it on a little. Yeah! It probably suited me the best anyway [Jasmine - Interview 5: Responses 18, 19, 20, 21].

Liz also offered a positive response. She commented that “I’m very glad I did this course. It has been a very big impact on my thinking, because I start thinking about different things and start looking up different things on the internet ... just the discussions we have had” [Liz - Interview 10: Response 7]. Amelia, who was inspired by Pope John Paul II to follow his leadership, said that, “It might have been Pope John Paul II and how he went to the youth of the world and said about his views on the ecological crisis and all that, and maybe when I get a little bit older, I can teach kids my age now, that sort of thing. And ... well maybe it is mine to teach kids about the Earth, so that’s what I’m going to do” [Amelia - Interview 2: Response 15].

## Summary

Overall, the students who participated in the interviews concluded that the study of *Earth Spirituality* had been a good experience. They were generally pleased to have participated in the class. Although each student chose to do the study for personal reasons, they were grateful for the experience and happy to share their experience with me. They experienced mixed emotions about their learning due to the challenge it presented to their life-world. Even so, the students still deemed the course very worthwhile and believed that it had contributed to their need to understand the environmental crisis in which they would work out their journey towards ecological conversion. Some students, quite readily expressed their gratitude for their newly found knowledge and understanding of their place in the universe story.

## Conclusion

In conclusion, it can be said, that the analysis of the data gleaned from the semi-structured interviews presented a significant insight into the experience of the students who studied *Earth Spirituality*, the unit of study which focused on spiritual ecological conscious towards ecological conversion set out as part of the context for this research in Chapter Three. Their stories were then analysed and included under thematic headings consistent with the ascending schema for ecological conversion.

The major findings from the interviews are that ecological conversion is a complex process but one that can be plotted against the students' experience of the environmental crisis from immersion in their lifeworld through to their experience of their classroom learning. Also, importantly is a positive response, on the part of the students, to learning about the great story of the universe, especially their place in that story. The students generally were pleased to learn about their interconnectedness, interdependence and interrelatedness as important for ecological conversion. Another significant finding was that the students quite readily appreciated the connection between ecology and spirituality and therefore they expressed their desire to engage in stewardship of the Earth. In relation to the

schema; while the schema presents an ascending order for teaching for ecological conversion the students' experience suggests a winding back and forth through the experiences before consolidating in a commitment for the renewal of the Earth. This, I believe was influenced by their abiding concern for the environment in crisis. However, it was still possible to map their experiences of anxiety over the environmental crisis, awe and wonder in understanding their place in the environment, empathy with all the creatures of the planet, confusion over their inherited lifestyles, frustration about not knowing their connections with the natural world, their developing ecological consciousness, earth spirituality and commitment to the future of the Earth. Overall, their experiences were consistent with the Year 10 students with the exception that they were, in general, more sensitive about their role in the environmental crisis. The findings will be discussed further in Chapter Eight.

## CHAPTER EIGHT

### BRINGING THE STORIES TOGETHER FOR MEANING MAKING

#### Introduction

The purpose of this thesis was to explore the experience of students who had participated in studies designed to address spiritual ecological consciousness towards ecological conversion. This thesis began by locating the research within an understanding we are experiencing a global environmental crisis and the need to respond to this crisis. After reviewing the literature, I realised that there was a lack of research into how youth were experiencing the environmental crisis and, more relevantly, how they viewed their role in addressing the crisis. I then established that some scholars argued that the global environmental crisis could be influenced by a spiritual, moral and ethical crisis in our society. Given my personal interest in the environmental crisis expressed in Chapter Five, and my responsibility as a teacher called to imbue students with a sense of the Earth as sacred, I wanted to explore how youth might be educated so that they felt empowered to respond in a positive way to the environmental crisis. Two classroom units were developed (*Creation Theology* and *Earth Spirituality*) to explore students' experience of learning about spiritual ecological consciousness towards ecological conversion. Hence, in general terms, this research investigated:

- What is the lived experience of spiritual ecological consciousness towards ecological conversion of the researcher/teacher in my life's journey?
- What is the experience of students who have participated in studies that focused on spiritual ecological consciousness towards ecological conversion?

The two research questions were supported by three sub-questions that were explored in the three data chapters.

- From a conceptual understanding, how did the experience of teaching and learning engage the students in contemplating their interconnectedness with the natural world?

- From an affective understanding, how did the experience of teaching and learning engage the students in order to understand that the Earth is sacred to God and that we should love Earth, our home.
- From a spiritual understanding, how did the experience of teaching and learning engage the students so that they could develop their sense of spiritual ecological consciousness towards ecological conversion?

The research questions that were addressed by the three sets of research data appeared to align with the existing literature introduced in Chapter One, explored in more detail in Chapter Two and placed in a historical, social, spiritual and teaching and learning context in Chapter Three. A hermeneutic/phenomenological methodology was chosen to interpret the student interviews and autoethnography. A discussion of the findings regarding the research questions is presented in this chapter. However, before advancing to a discussion on the response to the research questions, I want to review another important finding and that is an ascending schema developed for teaching and learning for ecological conversion.

### **Design of a Schema for teaching for Ecological Conversion**

A significant insight gleaned from a review of the literature and my personal and professional experience which became foundational to the teaching and learning for ecological conversion, culminated in a schema that offered a pathway from acceptance that there is an environmental crisis to a commitment to renewing the Earth. According to Collins (1995), ecological conversion is a process that requires a ‘change of heart’ through experience and education about human alienation from the natural world that has allowed for its destruction without conscience. The ascending schema provided an educational process that can reconnect the human with the natural world through developing environmental consciousness, experiencing earth spirituality, coming to a sense of spiritual ecological consciousness by accepting that the Earth does not belong to humans but to God and ultimately to ecological conversion for the renewal and restoration of the Earth.

As the thesis progressed the idea of a schema began to solidify in my mind as a way forward in teaching for ecological conversion. The literature offered a number of ideas that were different but each important, while my personal and professional life was also helpful in distilling some of the ideas for inclusion into a curriculum for teaching and learning for ecological conversion. The ascending schema provided a framework for teaching and learning which I have used on a number of occasions since its conception and it seems to make sense to those I have shared it with such as other classes at Catholic Secondary College, church groups and as a guest speaker for university students studying environmental education.

In this thesis the idea of the schema was presented in Chapter One. It is referred to in the way I presented the literature in Chapter Two. It was used to design the curriculum for the *Creation Theology* and *Earth Spirituality* classes and the research data is explored through the different stages of the schema. Table 8.1 and Table 8.2 presents the inclusion of the ascending schema in the literature, *Creation Theology* and *Earth Spirituality* units and in the analysis of the data. Figure 8.1: Ascending Schema for Embracing Ecological Conversion below is included here as a reference for Table 8.1 and Table 8.2.

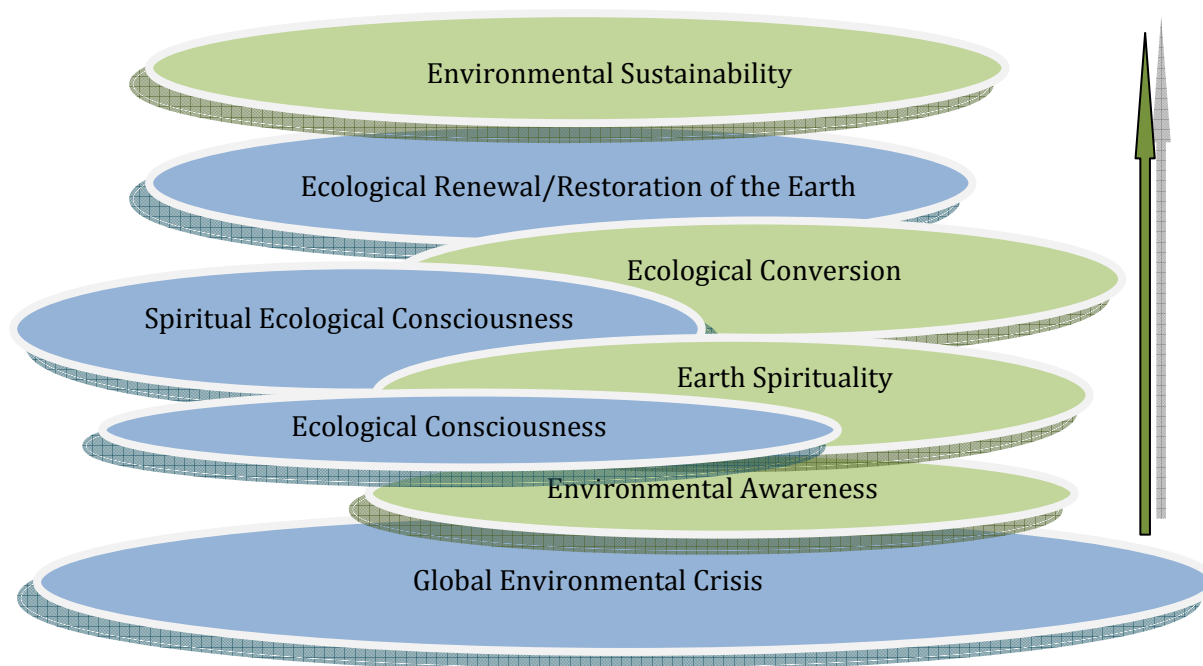


Figure 8.1: Ascending Schema for Embracing Ecological Conversion

Table 8:1 *Ascending Schema applied to Creation Theology and Thematic Analysis*

SCHEMA	THEMES IN THE LITERATURE	TOPICS IN CREATION THEOLOGY	THEMATIC ANALYSIS OF DATA
Environmental Sustainability			
Ecological Renewal/Restoration of God's Earth	Environmental Crisis: A Spiritual Crisis		
Ecological Conversion	Call to an Ecological Conversion		Experience of ecological conversion.
Spiritual ecological consciousness	Spiritual Ecological consciousness	Examine God's intimacy with His Creation through a Study of the Book of Job: Chapters 38 & 39.  Examine the articles from the Catechism of the Catholic Church which refer to Humans' relationship with the Natural World.  Investigate Creation Theology and the role of Jesus as the Cosmic Christ.	

Earth Spirituality	Earth Spirituality	Compare the two Stories of Creation from Genesis 1 & 2.
Ecological Consciousness	Compare the Creation Stories from other cultures with the Scientific and Judeo-Christian Stories of creation.	Investigate the Scientific Story of the Universe
Environmental Awareness	Aspects of the Global Environmental Crisis	<p>Experience of the challenge of marrying the religious account of creation with the scientific account of creation of the evolution of the universe.</p> <p>Experience of a sense of ecological consciousness.</p> <p>Experience of the Creation Theology Class.</p>



Table 8:2 *Ascending Schema Applied to Earth Spirituality and Thematic Analysis.*

SCHEMA	THEMES IN THE LITERATURE	TOPICS IN EARTH SPIRITUALITY	THEMATIC ANALYSIS OF DATA
Environmental Sustainability			
Ecological Renewal/Restoration of God's Earth	Responding to the challenge of an ecological vocation		
Ecological Conversion	Call to an Ecological Conversion	<p>Discuss articles relating to the environment in the Catechism of the Catholic Church.</p> <p>Evaluate the important role Pope John Paul II has as an ecological leader of environmental renewal.</p> <p>Demonstrate an understanding of Ecological Conversion.</p>	Experience of ecological conversion.

Spiritual Ecological consciousness	Spiritual Ecological consciousness	Spiritual Ecological consciousness
	<p>Draw conclusions from the Biblical Accounts of Creation in the Book of Genesis Chapters 1 &amp; 2.</p> <p>The Book of Job: Chapters 38-40.</p> <p>Show an understanding of Jesus in the Cosmic Story.</p> <p>Demonstrate an understanding of what it means to be spiritual in relation to the Earth and spiritually ecologically conscious</p>	<p>Experience of Spiritual Ecological Consciousness</p>
Earth Spirituality	<p>Investigate the Creation Stories from the Major Religions of the World.</p> <p>Experience the Ritual: The Cosmic Walk developed by Sr Miriam McGillis of Genesis Farm.</p> <p>Show an understanding of Indigenous Cultures' Attitudes to creation through the words attributed to chief Seattle.</p> <p>Understand the Buddhist and Australian Indigenous traditions of relationship with the Earth.</p> <p>Explore earth spirituality.</p>	<p>Earth Spirituality</p> <p>Experience of other traditions of earth spirituality.</p> <p>Experience of unit Earth Spirituality and Future.</p>

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Ecological Consciousness	Investigate the Scientific Account of Creation of the universe. Explore the interconnectedness and interdependence of all creatures. Demonstrate an understanding of ecological consciousness.	Experience of Ecological conversion. Experience of the <i>Earth Spirituality</i> class.
Environmental Awareness	Investigate the plight of the Murray-Darling Basin	
Environmental Crisis	Aspects of the Global Environmental Crisis	Experience of the Environmental Crisis.

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## **What is the lived experience of spiritual ecological consciousness towards ecological conversion of the researcher/teacher in my life's journey?**

The auto-ethnographic journey of spiritual ecological consciousness towards ecological conversion, the subject of Chapter Five, offered a genuine lived experience of the phenomenon that is the focus of this research (Holt, 2003). Having reflected upon my own journey with the hindsight of much of my reading, I was able to share my experience of spiritual ecological consciousness towards ecological conversion (Ellis and Bochner, 2000). The multiple layers of consciousness became apparent through examining my life's journey from ignorance of my place in the universe story to commitment to the renewal of God's Earth (Dilthy, 1985). As the researcher, I was immersed in the phenomenon of exploration from a personal sense of spiritual ecological consciousness (Richardson, 2003). I brought this inner explored experience of my life-world into language, that is, self as data, having taken a phenomenological hermeneutical approach and endeavoured to present a valid, genuine, reliable, credible, and realistic account of ecological conversion (Denzin & Lincoln, 2000 and Ellis, 1995).

The auto-ethnographic journey based on my recollections and reflections on significant experiences prompted movements in my consciousness as they occurred during my personal journey of discovery of my ecological-self. It also endeavoured to recount shifts in my thinking in relation to new pedagogical knowledge and skills (Holt, 2003). The insights gleaned from examining my teaching philosophy and practice played a critical role in positioning my revised pedagogy. My revised teaching practise, which seemed to be appreciated by my students, encouraged me to invite them to share their experience of ecological conversion so that my research for this thesis would be original and significant (Holt, 2003).

My particular interest also stemmed from my own experience of being educated from an 'awe and wonder' perspective, and so I wondered if students would be more likely to engage in sound environmental sustainable practice in order to address the environmental

crisis if they too could be empowered through ownership of the universe story (Uhl, 2004 and van Manen, 1990). The auto-ethnographic account illuminated my journey towards a meaningful understanding of an eco-self that is applicable to others who desire to come to an ecological conversion required to stimulate and sustain an evolution of environmental consciousness and an environmental revolution or, as Berry (1988) argues, a mega-religion required to turn climate change around.

The auto-ethnographic account is imbued with my culture and ethos through the sharing of every day happenings that influenced the experience of teaching and learning. It is a reflection that reveals the different and unique ways that I responded to, and interacted with and within the culture being researched. It endeavoured to tell the story of what it was like for me (Holt, 2003). Generating an auto-ethnographic account of the experience of teaching and learning about environmental issue in Chapter One provided a useful tool to examine my teaching experience in a self-reflexive manner where one's own practice, one's own experience, self as a data source, provided added value to understanding the research data presented in Chapters Five, Six and Seven (Ellis & Bochner, 2000).

Although it was not my intention at the outset of this thesis to examine my own life-world in coming to ecological conversion, it became pertinent as the research unfolded as my personal journey influenced my commitment to be pro-active in addressing environmental issues, especially through education. It was a revelation to me that it had been a long journey punctuated by numerous ecological experiences. Such lived experiences had not previously been reflected on to understand the sequence of events that had only recently been viewed through a holistic lens. For this reason, I experienced an empathy with my students as they grappled with their brief (in comparison) experience of spiritual ecological consciousness towards ecological conversion (Reed-Danahay, 1997).

The auto-ethnographic account is also a lived commentary on the issues raised in the literature. Firstly, it provided an example of Collins' (1995) argument that people must go through a conversion process. Whilst Collin's does not elaborate on what the conversion process might entail, he and other authors , see for example, (Edwards, 2001; McDonagh,

2000; Seed, 2005 and Toohey, 2006) suggest a number of important areas of knowledge and experience which I have encapsulated into a schema designed for this thesis. It begins with acceptance that we are engaged in an environmental crisis of mega-proportions and concludes with a commitment to renew the Earth. Therefore, my autoethnography offers a reflected on life where the conversion process is tracked and documented from environmental awareness through developing ecological consciousness, learning about Earth spirituality and what I had previously given lip service to, that it is God's Earth, to finally being called to an ecological conversion and an ecological vocation (Thomashow, 1996 and Treston, 2003).

The autoethnography also brings into focus the literature regarding my previous lifestyle which was caught up in the myth of progress, that is, as an avid consumer without thinking about consequences such as the depletion of the Earth's resources (Gardner 2006 and Swimme, 1992). There were also times when I was in the state of denial as expressed in the literature about the gravity of the environmental crisis and the size of my ecological footprint on the Earth (McFague, 1997; Zohar & Marshall, 2000). At the same time, I was responsive to the research on Gardner's (1999) Multiple Intelligences, in particular, that we may have a naturalist intelligence as well as a spiritual intelligence that predisposes us to ecological conversion.

Finally, as a Catholic teacher, I was inspired by Pope John Paul II's involvement in addressing matters of the environment and it was encouraging to draw on the inspiration of St Francis of Assisi as Patron Saint of Ecology as well as the new theology on Jesus as the Cosmic Christ (Boff, 1982; Edwards, 2006; Fox, 1988). The autoethnographic narrative is not only my story of coming to ecological conversion but it could possibly be the story of many others who have come to ecological conversion through their life-world which is yet to be reflected on. The most significant outcome of the autoethnography is that it helped to formulate one process for ecological conversion, which is applicable to a schema suitable to inform pedagogy for teaching and learning for ecological conversion. As a postscript to the autoethnography and my experience of teaching for ecological conversion, I now want to work in this area full time and have recently registered my own business, that is, Healthy Earth Education, and so the journey goes on! Below is Figure 8.2 illustrating the process of the thesis.

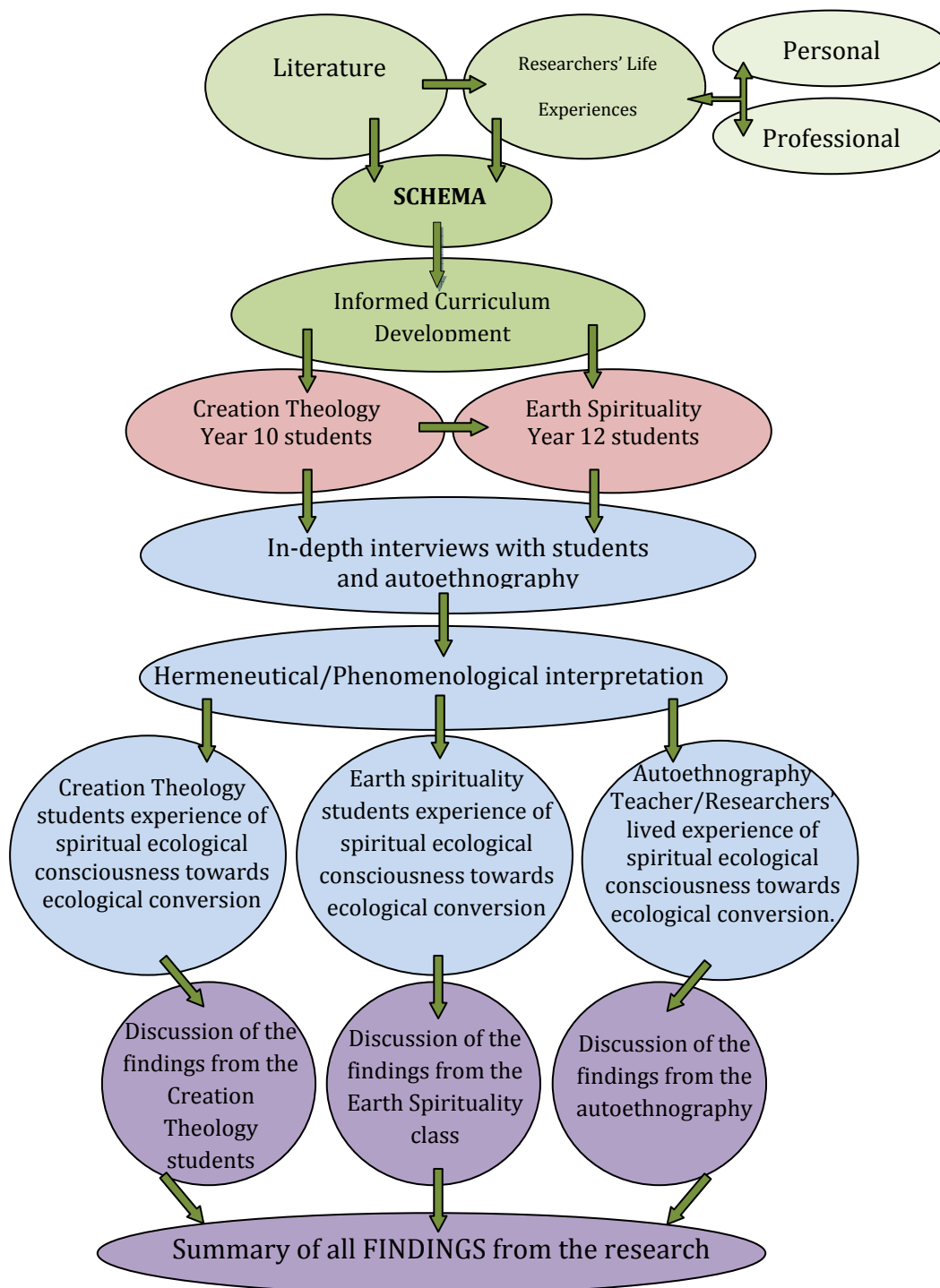


Figure 8.2: Flowchart Illustrating the Continuing Process of the Thesis.

## **What is the experience of the Creation Theology students who participated in studies that focused on spiritual ecological consciousness towards ecological conversion?**

The research findings presented in Chapter Six offered an insight into the perceptions and experiences of Year 10 students who studied *Creation Theology*. This topic was designed to explore the notion that when students are taught about creation from an ‘awe and wonder’ perspective they will be more open to being involved in addressing environmental issues leading towards sustainability and especially the renewal of the Earth.

After reflecting on the students’ experience of learning about creation theology, it is possible to appreciate that they were able to articulate their journeys from environmental awareness to ecological consciousness and the beginnings of ecological conversion, a change of heart. Their stories expressed a tentative movement towards spiritual ecological consciousness although this was frequently cloaked in nebulous statements about their sense of earth spirituality as expressed in connectedness, interdependence, interrelatedness, as well as acknowledging a common ancestry through evolution and importantly, God as creator of all.

The strong reference to the creation theme by the participants was an unexpected outcome from the interviews. In teaching the unit, I had not realised the impact that studying the scientific and biblical accounts of creation would have on the experience of the students. The difficulty of coming to grips with the ‘newness’ of the topic was particularly informing because the students seemed to be saying that uniting the two accounts of creation gave them a completely new and insightful comprehension of creation and their place in creation from a scientific and spiritual position. From the literature, it is evident that this is a significant aptitude for ecological conversion to take place because it is thought that if a person sees himself or herself in the creation story, then an understanding of connectedness and relatedness required for a new vision of place in the natural world is possible (Berry and Swimme, 1992).



The participants also shared their uncertainty in accepting the challenge to make the connections between science and religion, that is, ecology and faith, as presented in the Book of Genesis creation stories and their insights into the scientific account of evolution through the cosmic journey (Barlow, 2003; Berry, 1988; McDonagh, 2000; Edwards, 1999) This learning tended to captivate their imaginations as they shared their experience of marrying the two in such a way that they felt comfortable with their religious convictions as young Catholics (Toohey, 2006 and Treston, 2003). Their comfortableness in speaking about creation as belonging to God encouraged them to commit to discussing this new phenomenon with me. This is evidenced by the students' expressions of enjoyment about the class itself and feeling that their peers also appreciated the opportunity to share experiences of their new understanding of the universe story, the Earth story, the human story and the Earth as sacred to God (Bradley, 1992 and Brundell, 2003).

In the research data and subsequent analysis, it can also be noted that the participants were generally happy to share their insights regarding the change that had taken place in themselves, which indicated the beginnings of an ecological conversion. This was not done without a struggle. It was firstly, an intellectual challenge to make the connections between their learning and their life-world experiences, particularly to accept that this new knowledge involved them and that they were required to respond (van Manen, 1990). It was therefore significant that seven students offered to be part of this research from the awkward position of not knowing what might be required of them and yet they were prepared to be involved because they had been influenced and affected by what they had learnt and wanted to share their experience.

As discussed earlier, spiritual ecological consciousness requires faith in God as creator and therefore primary owner of all creation. A basic tenet in experiencing spiritual ecological consciousness in this thesis is the belief that the Earth and all creation belong to God (Edwards, 2001). The participants were articulate about their understanding of the relationship God has with His creation even though they expressed this through bold statements that tended to lack any embellishment. For some of the participants it was a 'matter of fact' confession of faith in God as creator.

In asking the participants to share their experience of learning about *Creation Theology*, it was the experience of the creation stories that responded to their essential need to open up issues of environmental concern. The participants, without prompting, were able to make the connections between what they were learning about the sacredness of the Earth and what they were experiencing of the environmental crisis in their life-world. This made some sense to them even though they found it challenging, even daunting, for the students generally were not in denial about the environmental crisis. In their life-world they had heard about it and believed it to be extremely serious in its consequences. This was an affirmation for McDonagh (2000) and Collins (1995), who argue that once people make the connection between ecology and theology then they can see that they belong together.

*Creation Theology* also appealed to the students because it was relevant to them. It gave them a means to process their thinking on the environmental crisis issues without explicitly naming the issues. On the other hand, 'awe and wonder', under a number of different guises, flowed through this research which was the experience of Uhl, (2004). The participants clearly expressed their sense of awe and wonder through their enjoyment of learning about *Creation Theology* and reflecting on their own journey of self-discovery (Matthews, 1991). For some students it can be said that the experience of learning about creation theology has opened up the possibility of moving to ecological conversion as their life-world experience and the continuing environmental crisis was put into perspective in light of their learning in this subject.

The participants' spiritual ecological consciousness experience was also communicated in their struggle to convey to me the depth of their experience regarding their spiritual connection to the Earth and its' creator. The students genuinely seemed happy to share their experience of understanding their connectedness, interrelatedness and interdependence in relation to the natural world. This sometimes appeared to challenge them in a way that confounded them, even to the point of feeling afraid to ponder their connections too deeply as evidenced in some of their comments that were deeply imbued with awe and wonder, even mystery (Berry, 1999; Fox, 1991 and Groome, 1998). It was the unexpected exposition of the participants' experience that prompted me to extend the topic to a full unit of study called *Earth Spirituality*, which was presented in Chapter Seven of this thesis.

## **What is the experience of Earth Spirituality students who participated in studies that focused on spiritual ecological consciousness towards ecological conversion?**

In the findings and analysis of Chapter Seven, the students' experience of studying *Earth Spirituality* as a semester study allowed for more in-depth interviews as the study was of a longer duration and the students were at least a year older. The students were able to articulate their experience with more understanding and conviction about what they had learned and the connections they had made with their life-world (Hatch, 2002).

The themes that were drawn from the interview data reveal the different levels of understanding of spiritual ecological consciousness towards ecological conversion as a pathway to addressing the environmental crisis. Although the class did not focus on issues relating to the environmental crisis, it was again evident in the students' responses that the state of the Earth was uppermost in their minds, and they brought to the interviews their real fears for the future of life on Earth which they had gleaned from the media and such films as *An Inconvenient Truth* 2006 (Gore, 1993; Heycox, 1991; Kendall, 1992 and McDonagh, 2005). However, the students' words encapsulate a movement from environmental awareness through ecological consciousness towards a tentative embrace of an ecological conversion as a pathway to involvement and action for the renewal of the Earth. This process (van Manen, 1990) describes as "knots in the webs of our experiences" (p. 90) which, when lived through, can formulate meaningful wholes, a composition of lived experience of both their life-world and their classroom learning. Lived experience of spiritual ecological consciousness towards ecological conversion is foundational to this hermeneutic phenomenological study. It is the record of a meaningful experience as the experience is reflected upon by both the participants of this study and the researcher undertaking the inquiry (Bochner & Ellis 1996 and Holt, 2003).

Reflecting on the essential themes that expound on the experience of learning about earth spirituality brings "into nearness that which tends to be obscure, that which tends to

evade the intelligibility of our natural attitude to everyday life” (van Manen, 1990, p. 32), which cannot be captured in intangible abstractions. The themes help to communicate something of the students’ experience and convey thoughts and feelings of the experience of learning about Earth spirituality. Common thoughts and feelings flowing through the interviews indicated the students’ preconceived notions of lack of empowerment regarding the state of the environment (Connell et al., 1999) and, at the same time, a joy and delight in learning that they are intimately connected to the natural world (McDonagh, 2007 and Tacey, 2004). They realised that the environment is not separate from them, something to be concerned about, but rather, that they themselves are immersed in the world of nature and can feel empowered to make changes to their lives that will make a difference and influence the future (Collins, 1995 and Toohey, 2006).

The students articulated their understanding of the Earth as spiritual and endeavoured to elucidate what it really meant for them. The validation of their comments about spiritual ecological consciousness is immersed in their reflections on their life-world (Berry, 1996). At such a deep level of recall about their experience of spiritual ecological consciousness, it was easier for them to describe spiritual ecological consciousness towards ecological conversion rather than to commit to their own experience of the phenomenon.

The students’ stories revealed a movement from a minimalist awareness of the impact of the issues surrounding the environmental crisis to an acceptance of the reality that they can be instrumental in bringing about effective change in their thinking and lifestyle (Collins, 1995; Mc Donagh, 2007 and Tacey, 2004). Throughout their responses in the interviews, the movement from environmental awareness, to ecological consciousness to spiritual ecological consciousness towards ecological conversion is evident. The vehicle for this transition was the study of *Earth Spirituality* that focused on the Earth as spiritual, as sacred to God (Collins, 1995). The themes of connectedness, interdependence, interrelatedness, and Earth spirituality are filtered throughout their responses. As a spirituality to sustain sustainability, the students’ responses encapsulate the necessary ‘change of heart’ required to commit to an alternative way of living that ‘walks lightly on the Earth’ as well as due respect for the Earth itself as belonging to God (Pope John Paul II, 1990; Toohey, 2006 and Treston,2003).

Another area of exploration was the possible effectiveness of a course of study to affect a change of heart regarding commitment to care for the Earth. From an analysis of the research data present in Chapter One, it was evident from the participants' stories that such a study can be effective in changing attitudes towards the environmental crisis issues and consequently, make a commitment to environmental sustainability (Barlow, 2003; Berry, 1999; Morris, 1998; Orr, 2004; Swimme & Berry, 1992 and Uhl, 2004). The participants spoke positively about their experience of the class and some even felt that they would like to do further studies in the area as the topic was new to most of the participants. They had 'snippets' of previous knowledge from their life experiences or more detailed knowledge from their schooling, but in general the participants had not actually put the whole picture together. They had not made the connection between faith and ecology (Collins, 1995). This new understanding opened up for them the possibility of committing, to some degree, to stewardship of the Earth.

The students' experience of learning about and experiencing earth spirituality was generally positive which was consistent with the work of Tacey, (2006). Again, it was the universe story that seemed to capture their interest and generate an open-ness to learning about its meaning for them as argued by (Swimme & Berry, 1992). Another area of learning that caught the students' imagination and interest was the opportunity to learn from other spiritual traditions such as Buddhism and Australian Indigenous earth spirituality. Both speakers spoke passionately about the Earth as spiritual which expanded the students' horizons to embrace other ways of viewing the Earth as sacred thus complementing the work of (Buhner, 1997; Fox, 1991; and Hallman, 1995).

Although this will only ever be a partial account of the students' experience of studying *Earth Spirituality* which focused on spiritual ecological consciousness, the findings have generated significant insight and understanding of their experience of the phenomenon. It is anticipated that this study has the potential to stimulate more research and contribute to further development of teaching for sustainability through an 'awe and wonder' paradigm as well as the improvement in pedagogy in this most deserving area of education.

## Summary of all Findings

Overall, the students' experience of *Creation Theology* and *Earth Spirituality* was a positive one as they repeatedly affirmed their gratitude for being exposed to a new way of viewing the environmental crisis and their identification with the spiritual, moral and ethical issues surrounding it (Brown, 2003; 2004). Their experience of learning about the universe story affirms the insights of Berry, (1988) and Swimme & Berry, (1992). That the students made important connections between spirituality and ecology also supports the experience of Collins, (1995), McDonagh, (2007), Tacey, (2004) and Treston, (2003) who argue that the two belong together.

From a conceptual understanding, the experience of teaching and learning engaged the students in contemplating their interconnectedness with the natural world by giving them an opportunity to conceptualise their place in the Earth story as members of a community of beings, that is, interdependent and interrelated. The students expressed their appreciation of this new perspective and gave examples from their lifeworld after reflecting on their lives and empowered by their acquisition of new knowledge. From an affective understanding, the experience of teaching and learning engaged the students in order to appreciate that the Earth is sacred to God and that we should love Earth, our home, because we are not separate from it but immersed in its' life. The students' responses were very much about new 'feelings' about their lives and the call to stewardship of creation as a matter of faith. From a spiritual understanding, the experience of teaching and learning engaged the students so that they could develop their sense of spiritual ecological consciousness towards ecological conversion. This was evidenced in their responses about the spirituality of other traditions and development of their own spiritual connection to the Earth as well as accepting that the Earth is sacred in itself and sacred to God, the creator of all life. The students' stories explicated from the interviews suggest the 'beginnings' of developing spiritual ecological consciousness towards ecological conversion because it is not something that can be hurried but rather it takes time to grow spiritually through learning and experience as shared in my autoethnography in Chapter Five.

## Conclusion

Throughout the discussion, there were a number of constants that reoccurred as themes or knots in the web of experience of life-worlds and teaching and learning. A review of the literature chosen to inform this thesis generated a number of examples of how people perceived the Earth as spiritual. This helped to put the students' experience into perspective as the literature revealed wide-ranging views from the myths of progress, and adults in denial, to exemplars of Earth spirituality and champions of environmental activism and authorship. To emulate is to imitate and so an education curriculum for teaching for ecological conversion was implemented based on their scholarly contributions and my personal and professional experience.

Lastly, insights discovered from the experience of the *Creation Theology* students were invaluable for the development of the *Earth Spirituality* curriculum as the experience of the students in the interviews shared much more than the words in the transcript. For the students, there was a tangible joy expressed in their language of the senses that could not be transcribed. They highlighted the significance of the process of experience and learning leading to ecological conversion. Although the senior students who studied *Earth Spirituality* were more tentative in their responses there was a sincerity, an earnestness to share their experience of the class and also their experience of reflecting on their ecological self in response to the interview questions. The seventeen students who agreed to be interviewed about their experience of spiritual ecological consciousness towards ecological conversion are witnesses to their sincerity about their learning experience. There are a number of insights gleaned from the literature and the thesis experience which provide the focus of Chapter Nine such as the importance of understanding the role of spiritual ecological consciousness in the schema which offers a process for ecological conversion.

## **CHAPTER NINE**

### **THE STORY ENDS ONLY TO BEGIN AGAIN**

#### **Introduction**

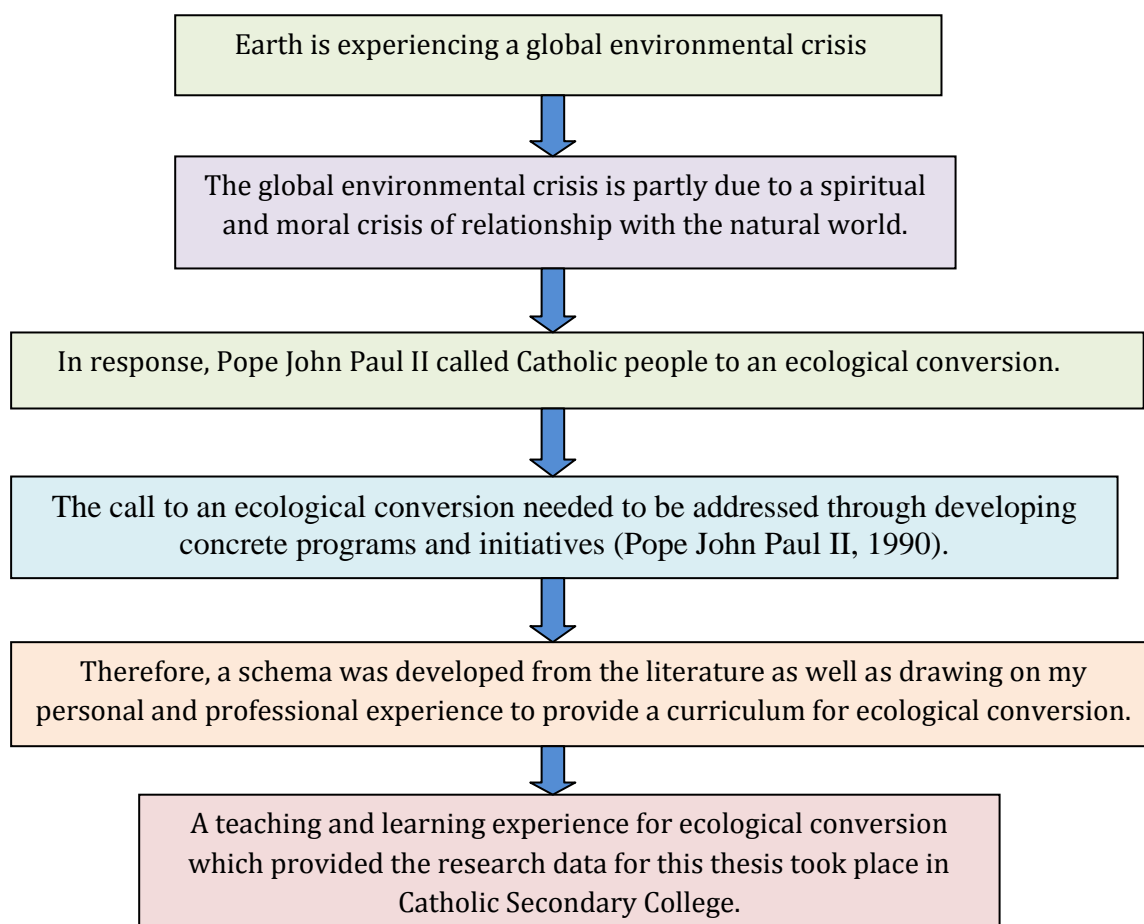
In this thesis, I set out to explore how adolescents experience Pope John Paul II's call to an ecological conversion. The process for this exploration required teaching a course of study that was based firstly on my earlier teaching experience for environmental sustainability and secondly, and more importantly, on the work of Berry (1988) and supported by the teaching experience of Uhl (2004) and Tacey (2004) which also contributed to the development of the units. This approach required my teaching for ecological conversion and ultimately environmental sustainability to be founded on 'the great story of the universe' (Berry, 1988) to inspire a sense of 'awe and wonder' (Uhl, 2004) so that students will learn to 'love the Earth' (Tacey, 2004).

The exploration into the students' experience of teaching and learning responded to Pope John Paul II's (1990) call to an ecological conversion by developing a process for coming to ecological conversion (Collins, 1995). The process evolved out of a rich context of teaching and learning experience designed to sensitise students to the environmental crisis and their responsibility to engage with solutions, that is, to embrace an ecological vocation to care for the Earth (Pope John Paul II, 1990). The thesis was informed by the literature chosen for this research which helped to provide a context for teaching and learning for ecological conversion. A suitable methodology, that is, hermeneutical/phenomenology, specifically lived experience (van Manen, 1990), was appropriated to research and students' experience of teaching and learning for spiritual ecological consciousness towards ecological conversion.

Throughout the writing of this thesis, I came to an understanding that ecological conversion is a process of learning and experience. A curriculum was designed to explore ideas for education on the sacredness and vulnerability of the Earth as presented by Swimme & Berry (1992) as well as my experience as a teacher for environmental sustainability and religious education. This was supported by my personal experience of coming to ecological conversion. Relevant popular literature also contributed to my



understanding of how people might come to an ecological conversion. A schema for teaching for ecological conversion developed from the following pathway illustrated in Figure 9.1: Background to the Thesis and the Research Questions.



*Figure 9.1: Background to the Thesis and Research Questions.*

### **Emergence of an Ascending Schema for teaching for ecological conversion.**

An ascending schema, presented in Chapter One, emerged through a teaching and learning experience, my personal experience, reading the literature around ecological conversion and explored throughout the writing of the thesis became meaningful for me in order to understand a process for ecological conversion. My understanding was that, firstly, the Earth is experiencing a global environmental crisis largely induced by excessive human

activity and spiritual alienation from the natural world. Since the call to an ecological conversion came after an assessment of the plight of the Earth, it can be assumed that there is a correlation between the severity of the global environmental crisis and the urgent call to an ecological conversion. It followed then that the first stage of the process was to become environmentally aware or conscious. The second stage was to learn about the Earth; its beginnings and the development of ecosystems that made life on Earth possible. This stage also required an understanding of interdependence, interconnectedness and interrelatedness with the natural world. Another important attribute was to understand the Earth as spiritual, as sacred in itself, as understood by some indigenous people who view Earth as mother, spirit, and therefore introducing the notion of alienation from the source of life which to some degree has brought about the current demise of the Earth (Berry, 1988; Buhner, 1997; Fox, 1991; Lovelock, 1988). The third stage of the process was to consider the Catholic/Christian belief that God is the creator of the universe and so the Earth firstly belongs to God, thus introducing the theological underpinning of spiritual ecological consciousness (Edwards, 1999). Lastly, the combination of all the stages in the process may lead to an ecological conversion and the commitment to accept the call to an ecological vocation to work for the restoration of the Earth. Therefore, after educating adolescents for ecological conversion the research questions evolved:

- What is the experience of students who have participated in studies that focused on spiritual ecological consciousness towards ecological conversion?
- What is the lived experience of the researcher/teacher in her journey for spiritual ecological consciousness towards ecological conversion?

### **Overview of the Thesis Story**

In Chapter One, I outlined earlier experiences of teaching and learning for ecological conversion through studies that involved studying Earth ethics. This teaching was met with what I perceived as a negative response from the students, that is, further alienating them from the belief that they could make a difference to the environmental crisis. Presentations on

the state of the Earth regarding the environment and prospects for sustainability only reinforced the presence of a 'doom and gloom' attitude the students possibly felt about their future. Students can feel that they are the victims, and they may feel powerless to help stem the tide of the environmental crisis (Connell et al., 1999; Milburn, 2008; and Organisation for Economic Co-operation and Development 2008)). Efforts to teach about the global environmental crisis from a doom and gloom perspective that focused on the severity of the environmental crisis resulted in students feeling alienated from the community who are responsible for the crisis and responsible for correcting it. After reflecting on the students' attitudes towards my teaching, I decided to embark on a new approach, one of amazement of the universe story and initiation of a sense of 'awe and wonder' (Berry, 1988; Swimme, 1984 and Uhl, 2004) of the universe as well as the challenge from the Catholic tradition to become stewards of the Earth (Pope John Paul II, 2001).

In Chapter Two, I explored the literature surrounding the various stages of the ascending schema for ecological conversion. The stages were presented thematically, that is, the global environmental crisis, ecological consciousness, Earth spirituality, spiritual ecological consciousness and ecological conversion for sustainability and renewal of the Earth. The themes provided a conceptual framework that underpinned the research as they drew on current scientific, religious and governmental reports on the global environmental crisis as well as literature from the Catholic tradition on the call to stewardship of the Earth (Edwards, 2001; Hart, 2004 and McDonagh, 2000). The literature also discussed humans' predisposition to ecological conversion by attending to their naturalist and spiritual intelligences, as argued by Gardner (1999) and Zohar and Marshall, (2000).

Chapter Three placed the research within the context of four dimensions for the research, that is, the response of the Catholic Church to the environmental crisis, current education initiatives for the environment, the call to ecological conversion through education and a teaching and learning curriculum designed for innovative pedagogy for ecological conversion. The multilayered context provided a backdrop for the research into the experience of teaching and learning for spiritual ecological consciousness towards ecological conversion.

Chapter Four discussed hermeneutical/phenomenology as a human science chosen as the methodology for the research as it allowed for description and interpretation of the research data, that is, the manuscripts which were transcribed from the semi-structured interviews conducted with the participants in the research as well as an autoethnography which explicated the ecological conversion journey of the researcher. Hermeneutical/phenomenology also allowed for uncovering themes, ‘knots in the web’ of experience around which experiences are spun and thus gave language to meaningful wholes. As van Manen (1990) explains, “themes are the stars that make up the universe of meaning we live through” (p. 90).

Chapter Five presented my autoethnography as research data because it provided another example of knots in the web of experience for spiritual ecological consciousness towards ecological conversion. I had not examined my life through an environmentally conscious lens before commencing this research. It was while endeavouring to teach my students and subsequently to interpret their experience that I realised that my own journey had influenced my teaching and that the awe and wonder moments of my ecological life could possibly be replicated in the classroom in the hope that my students would experience their own awe and wonder moments about their relationship with the Earth. According to van Manen (1990), a researcher engaged in phenomenology as a human science needs to be deeply immersed in the phenomenon under study and so it was for me. My autoethnographic journey offered an authentic account of my reflections on growing my ecological self. This was helpful in understanding the students’ reflection on their ecological self as they explored their own experience of learning about spiritual ecological consciousness towards ecological conversion.

In Chapter Six, the research data relating to the students who studied *Creation Theology* was presented. The research data was presented thematically to place their experiences within the different stages of the ascending schema for ecological conversion. Although their experiences, in general, do not cover all the stages of the schema, it can be gleaned from their comments that they experienced incremental movements through various stages of learning and/or experience towards ecological conversion. The teaching and learning experience was affirmed by the participants in my research as they spoke confidently

about their experience of classroom learning regarding the various topics in the respective curriculums thus indicating their willingness to engage with the process of ecological conversion.

The research data presented in Chapter Seven discussed the experience of the *Earth Spirituality* students. The different levels of understanding and commitment were more pronounced than the *Creation Theology* students as they tended to reference their learning against their life-world regarding the state of the environment which generally, was of concern to them. There were expressions of commitment to action for the environment as they aligned their knowledge of the environmental crisis with the call to an ecological vocation after learning that the Earth is sacred, is spiritual. Again, the students expressed their appreciation for learning about Earth spirituality because it provided them with an opportunity to understand their place in the Earth story, particularly the global environmental crisis, without feeling threatened or lacking empowerment to make a difference.

The research data was discussed in Chapter Eight allowing the knots in the web of the students' experience of spiritual ecological consciousness towards ecological conversion to be viewed holistically. Two general observations are firstly, ecological conversion does not happen by simply being called to it, rather, it requires a process informed by experience and education. Secondly, students can experience a deep concern regarding the future of the Earth and in particular, their future.

### **Further Contributions to Extant Knowledge**

- 1) Spiritual ecological consciousness: a term coined for this thesis.
- 2) Teaching for ecological conversion from an 'awe and wonder' perspective.
- 3) Affirmation of Berry's (1988) mandate to tell the 'great story of the universe'.

- 4) Design of an ascending schema which provides a process from awareness of the environmental crisis to ecological conversion for renewal of the Earth.

Firstly, the term spiritual ecological consciousness was coined for this thesis. It was coined to make a distinction between ecological consciousnesses that can be devoid of appreciation that the Earth first and foremost belongs to God. Adding the 'spiritual' can influence how we perceive the environmental crisis, whether it is a survival crisis for humanity and biodiversity or whether as Pope John Paul II (2000) argued, that we have betrayed the mandate God gave to us to care for the Earth. It is also imbued with a sense of God's intimacy with His creation especially in the person of Jesus as the Cosmic Christ (Edwards, 1991 and Fox, 1988). Spiritual ecological consciousness has been used constantly throughout the thesis because it informs the process for ecological conversion within the Catholic tradition as a prerequisite for ecological conversion. For students within the Catholic tradition, there is the added dimension of faith in a creator God. When students recall that the Earth and all creation firstly belongs to God and therefore they have an obligation to care for the Earth as God's creation, rather than simply being caught up in sustainability issues for human survival. They have another reason to be committed to preserving biodiversity and working towards sustainability for all life. Such a religious belief allowed them to view the Earth as spiritual because it is sacred to God, who became one with creation in the person of Jesus who walked with the natural world.

Secondly, a further significant contribution to the body of knowledge is that the 'awe and wonder' approach (Uhl, 2004) to appreciating the Earth story can have a profound influence on youth. In order to inform students and engage them in combating the environmental issues responsible for climate change a different paradigm was required, that is, one that begins with a sense of awe and wonder at the universe for example, the beauty, diversity and complexity of their home planet. When students are educated through an awe and wonder perspective, through which they view themselves within the great story of the universe, the Earth story, the human story and their own story, they are more likely to feel empowered to make a difference. Learning that they are interconnected, interdependent and interrelated, that is, immersed in their environment, helps them to feel involved and more able to commit to making a difference through their new way of seeing themselves in the

world. Therefore, teaching for ecological conversion must be sensitive and responsive to the lifeworld of the students and affirm them so that they are open to engaging with the issues relating to the environmental crisis.

Thirdly, generally speaking, there is limited provision within the educational curriculum domains of schools to teach the 'great story of the universe' (Swimme & Berry, 1992) as it was, in general, new knowledge to all the participants in the research, that is, the Earth story that set in place all the ecosystems that made life on Earth possible. The human story places humanity at the apex of creation and therefore in a dependent but also dominant position. Telling the great story of the universe to the students affirmed Berry's (1988) belief about the benefit of story-telling as a way of inviting people to reconnect with the earth. The story of the universe, the Earth story and the human story must be shared with an emphasis on sound science and history in order to invoke a sense of awe and wonder especially that the Earth lives, has a life of its own and is responsive to human activity (Toohey, 2006). When students accept their interconnectedness, interdependence and interrelatedness then they are in the position to assume ownership of the Earth for humans care for that which they own and love (Tacey, 2004). This is empowering for them because when they make the connections they no longer see the problem as someone else's problem or unrelated to their own lives.

Fourthly, the design and implementation of the Schema for an ascending order of learning and experience which includes telling the great story of the universe is a significant contribution to pedagogy for stewardship of creation and ultimately ecological conversion. Beginning with environmental awareness and moving through the various levels of education and engagement with the Earth to finally come to a commitment to renew the Earth is a process that has been explored through the teaching and learning of *Creation Theology* and *Earth Spirituality*. In addition, the teaching and learning through the various stages of the ascending schema can encourage youth to own their environment so that at their local level they feel empowered to be pro active in their personal lives with the prospect of doing much more when they are older and in control of their own affairs.

## **Implications and Recommendations for Future Teaching-Learning**

The abiding concern from my research was the degree of anxiety felt by the students regarding the global environmental crisis. Whilst some adults are in denial as to the enormity of the crisis (McFague, 1997), youth generally accept the reality of the environmental crisis and fear for their future. The anxieties of youth discussed in Chapters Five and Six are ongoing, therefore, preparing young people for the consequences of global warming and loss of biodiversity is an important consideration for teachers in general. There are government directives and courses for teaching for sustainability, for example, *A National Review of Environmental Education and its Contribution to Sustainability in Australia (2005)* and religious curriculums for stewardship of the Earth, for example, *Source of Life: Stewardship (2005)* therefore, training of teaching staff is an important consideration in attempting to educate students for an unknown and perhaps unimaginable future if scientific predictions are correct, see for example, the Garnaut Climate Change Review (2008).

### **Recommendations for Further Research**

Further research could explore:

- The lived experience of adults as they make the connection between spirituality and ecology.
- The experience of educating primary school students for ecological conversion?
- The experience of educating students to explore Earth spirituality in a non-religious school?
- The experience of making the global environmental crisis personal so that everyone can feel empowered to engage with solutions?
- The experience of students' anxiety over their futures given their understanding of, and involvement in, the global environmental crisis?



## **Concluding Comments**

As I embarked on this thesis in a quest for understanding how we might come to an ecological conversion, I was unprepared for the questions it would generate. Five years ago, when an awareness of the present global environmental crisis was just emerging in me, I was excited about teaching my students about the loss of biodiversity and issues of sustainability. Today, on the World Wide Web and in the news we read about global warming, climate change, loss of biodiversity, rising sea levels, water shortages and melting poles. At the outset of this thesis, it was in the future, today it is reality! As I read the literature informing this thesis, I realised that teaching for ecological conversion would be an awesome yet daunting task and so, as a teacher, I wondered what the experience would be like for senior secondary students to undergo an ecological conversion.

Throughout the teaching process, there were moments of anxiety when I doubted whether my teaching would influence the students in developing a sense of the sacredness of the natural world. There were no guarantees that the curriculum would captivate the students' imagination and their hearts. I felt like a voice in the wilderness calling my students to another place, a whole different paradigm of being in the world, and ultimately to ask them to share their experience with me. Thus, it was with a great deal of trepidation that I embarked upon teaching for spiritual ecological consciousness towards ecological conversion. On a day-to-day basis, I had no idea whether I was awakening the ecological spiritual self within my students, whether there was a quickening of the heart to embrace a new sense of place in the universe story. I wondered if any of my students would be willing to talk to me about their experience and so it was an absolute delight for me that so many of my students wanted to share their story. This was very humbling for me. With one opportunity to interview them, I was delighted with their willingness to talk with me about their experience. This was perhaps the singular most gratifying experience of my thesis. Now, with that experience behind me, I believe that we should listen to their hearts and continue the dialogue so that not only can we as educators care for them intellectually and spiritually but also support them in

their life-world of deep concern and anxiety over their futures in an environmentally troubled world.

In the closing words of this thesis, my heartfelt thanks go out to those young men and women of my research for they are now making their way in the world. My faith in them is founded on their own words that they do not want to be bystanders in this crisis but proactive, empowered by their new understanding of their place in the universe story. My hope for them is that what we shared in the classroom will be supporting them now in this time of need and that they are men and women of faith and hope in their future for the Earth they learned to love.

## REFERENCES

Altman, N. (2002). *Sacred water: The spiritual source of life*. New Jersey: Hidden Spring Publisher.

Andrews, V. (1990). *A passion for the earth: Exploring a new partnership of man, woman and nature*. San Francisco: HarperCollins Publishers.

Armstrong, E.A. (1973). *St Francis, nature mystic: The derivation and significance of the nature stories in the Franciscan legend*. Berkeley: University of California Press.

Australian Catholic Social Justice Council (2002). *A new earth: The environmental challenge*. Retrieved July 7, 2003 from <http://www.Catholic.org.au/statements>.

Australian Conservation Foundation and National Farmers' Federation (2000). *Repairing the country - A five-point plan*. Retrieved June 6, 2005 from <http://www.acfonline.org.au>.

Australian Government Department of the Environment and Heritage. (2005). *A national review of environmental education and its contribution to sustainability in Australia*. Sydney: Macquarie University Press.

Barlow, C. (2003). *An immense journey: Religious naturalism and the great story*. Retrieved June 10, 2006 from [www.thegreatstory.org/convergence](http://www.thegreatstory.org/convergence).

Bambach, C. 1995). *Heidegger, Dilthey, and the crisis of historicism*. London: Cornell University Press.

Barnacle, R. (2001). *Phenomenology: Qualitative research methods*. Melbourne: RMIT University Press.

Bavinck, H. (2000). *In the beginning: Foundations of creation theology*. Grand Rapids: Baker Books.

Berry, T. (1988). *The dream of the earth*. San Francisco: Sierra Club Books.

Berry, T. (1996). "Ethics and ecology": An unpublished paper delivered before the Divinity School and the University Committee on the Environment Harvard University. Retrieved July 7, 2007 from <http://ecoethics.net/ops/eco&ecol.htm>.

Berry, T. (1996). "The university: Its response to the ecological crisis". A paper delivered before the Divinity School and the University Committee on the Environment . Harvard University. Retrieved August 6, 2006 from <http://ecoethics.net/ops/univers>.

Berry, T. (1996). An ecologically sensitive spirituality. *Earth Ethics*, 8 (1) 1-13.

Berry, T. (1999). *The great work: Our way into the future*. New York: Bell Tower.

Berry, W. (1991). *Standing on the earth: Selected essays*. Ipswich, U.K: Golgonooza Press.

Berry, W. (1997). *A world lost*. Washington D.C: Counterpoint.

## References for the Thesis

- Besthorn, F. (2002). Expanding spiritual diversity in social work: Perspectives on the greening of spirituality. *Currents: New Scholarship in the Human Services 1* (1) Retrieved June 10, 2006 from [www.fsw.ucalgary.ca/currents/articles/besthorn](http://www.fsw.ucalgary.ca/currents/articles/besthorn).
- Bochner, A. & Ellis, C. (Eds.) (1996). *Composing ethnography : Alternative forms of qualitative writing*. Walnut Creek, CA: AltaMira Press.
- Boff, L. (1982). *St Francis: A model for human liberation*. Great Britain: The Camelot Press Ltd.
- Boff, L. (1995). *Ecology and liberation: A new paradigm*. Maryknoll, N.Y: Orbis Books
- Boff, L. (1997). *Cry of the earth, cry of the poor*. Maryknoll: Orbis Books.
- Bowers, C.A. (1995). *Educating for an ecologically sustainable future: Rethinking moral education, creativity, intelligence, and other modern orthodoxies*. Albany: State University of New York Press.
- Bradley, I. (1992). *God is green: Ecology for Christians*. New York: Doubleday.
- Brown, N. (2004). Conscience and the ecological crisis. *Compass: A review of topical theology*. 38, 1(13-18).
- Brown, N. (2003). Earth and spirit: A spirituality for our times. *Compass: A review of topical theology*. 37. (12-19).
- Brink, P. J. (1991). Dialogue: On issues about reliability and validity. In J. M. Morse (Ed.) *Qualitative nursing research - A contemporary dialogue*. Thousand Oaks, CA: Sage.
- Brundell, B. (2003). The call to ecological conversion. *Compass: A review of topical theology*. 37 (1-2). Retrieved August 10, 2007 from [www.compassreview.org](http://www.compassreview.org).
- Burkhart, M. & Nagai-Jacobson, M. (2002). *Spirituality: Living our connectedness*. Albany. N.Y: Delmar Thomas Learning.
- Buhner, S.H. (1997). *One spirit many peoples: A manifesto for earth spirituality*. Niwot, CO: Roberts Rinehart Publishers.
- Burns, N., & Grove, S. (1997). *The practice of nursing research: Conduct, critique and utilization*. (3<sup>rd</sup> ed.) Pennsylvania: W.B. Saunders Company.
- Candy, P.C. (1989). Alternative paradigms in educational research. *Australian Educational Researcher*, 16 (3) 1-11.
- Capra, F. & Stendl-Rast, D. (1992). *Belonging to the universe*. San Francisco: HarperCollins.
- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York: Anchor Books.
- Carmody, J. (1983). *Ecology and religion: Towards a new Christian theology of nature*. New York: Paulist Press.

## References for the Thesis

- Carroll, J.E., (2004). *Sustainability and spirituality*. New York: State University of New York Press.
- Carson, R. (1962). *Silent spring*. Boston: Houghton Mifflin.
- Carson, R. (1984). *The sense of wonder*. New York: Harper and Row.
- Catholic Bishops of Queensland (2004). "Let the many coastlands be glad" (A Pastoral Letter on the Great Barrier Reef). Retrieved July 16, 2006 from [catholicearthcareoz.net/resources.html](http://catholicearthcareoz.net/resources.html)
- Catholic Church (1994). *Catechism of the Catholic Church*. Homebush: St Paul's.
- Catholic Earthcare Australia (2005). "Climate change: Our responsibility to sustain God's Earth". Retrieved July 16, 2006 from [catholicearthcareoz.net/resources.html](http://catholicearthcareoz.net/resources.html)
- Catholic Earthcare Australia (2005). "The gift of water". (A Statement from Catholic Earthcare Australia endorsed by Bishops of the Murray-Darling Basin, Australia). Retrieved July 16, 2006 from [catholicearthcareoz.net/resources.html](http://catholicearthcareoz.net/resources.html)
- Catholic Earthcare Australia (2006). *On holy ground*. Retrieved September 24, 2007 from [www.catholicearthcareoz.net](http://www.catholicearthcareoz.net).
- Catholic Education Sandhurst (2002). "Source of Life: Stewardship". *Religious Education Curriculum*, Bendigo
- Chief Seattle (1855). Important roots can be found in the original cultures of North America. *In Context: A Quarterly of Humane Sustainable Society*. Retrieved July 9, 2007 from <http://www.context.org/ICLIB/IC03/Seattle.htm>
- Clayton, S. & Brook, A. (2005). *Can psychology help save the world? A model for conservation psychology*. *Analysis of Social Issues and Public Policy* 5, (1) 87-102.
- Collins, P. (1995). *God's earth: Religion as if it really mattered*. North Blackburn, Vic: Dove.
- Common Declaration by Pope John Paul 11 and the Ecumenical Patriarch Bartholomew 1 Rome-Venice, 10 June 2002. Retrieved June 20, 2006 from [www.vatican.va/roman\\_curia/pontifical\\_councils/chrstuni/sub-index/index\\_orthodox-ch.htm](http://www.vatican.va/roman_curia/pontifical_councils/chrstuni/sub-index/index_orthodox-ch.htm)
- Commonwealth of Australia (1992). *An Overview of the National Strategy for Ecologically Sustainable Development*. Canberra: Department of the environment and Water Resources.
- Connell, S., Fien, J., Sykes, H and Yencken, D. (1999). "If it doesn't directly affect you, you don't think about it": A qualitative study of young people's environmental attitudes in two Australian cities. *Environmental Education Research*, 5, (1) 5-12.
- Connole, H. (1993). The research enterprise. In H. Connole, B. Smith & R. Wiseman (Eds.), *Issues and methods in research: Study guide*. Underdale, SA: University of South Australia.

## References for the Thesis

- Crotty, M. (1996). Doing phenomenology in qualitative research practice in adult education. In P. Willis, and B. Neville (Eds.), *Phenomenology as research method*. Ringwood, Vic.: David Lovell Publishing.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sydney: Allen & Unwin.
- Cummings, C., (1989) Exploring eco-spirituality. *Spirituality today*.41 (1) 30-41.
- Cutcliffe, J., & McKenna, H. (1999). *Establishing the credibility of qualitative research findings: the plot thickens*. *Journal of Advanced Nursing*. 30(2) 374-380.
- Davies, P. (1988). *The cosmic blueprint: New discoveries in nature's creative ability to order the universe*. Pennsylvania: Templeton Foundation Press.
- De Chardin, T. (1965). *Building the earth*. New York, New York: Avon Books.
- De Chardin, T. (1969). *Christianity and evolution: Reflections on science and religion*. Pennsylvania: Harvest Book.
- De Chardin, T. (2002). *The phenomenon of man*. New York: Harper Collins Publishers Inc.
- De Gues, A. (1997). *The living company*. Cambridge, M.A.: Harvard Business School Press.
- Denzin, N. & Lincoln, Y. (Eds.) (1994). *Handbook of qualitative research*. London: Sage Publications.
- Denzin, N. & Lincoln, Y. (2003). *Strategies for qualitative inquiry*. London: Sage Publications.
- Department of Environment and Heritage (2000). *Environmental education for a sustainable future: National action plan.*, Canberra: Australian Government.
- Department of the Environment, Water, Heritage and the Arts (2005). *A national review of environmental education and its contribution to sustainability in Australia*. Canberra: Australian Government.
- Dempsey, C., & R. Butkus (Eds.) (1999) *All creation is groaning: An interdisciplinary vision for life in a sacred universe*. Collegeville, MN: Liturgical Press.
- Devall, B., & Sessions, G. (1985). *Deep ecology: Living as if nature mattered*. Salt Lake City: Peregrine Smith Books.
- De Souza, M. (2001). Addressing the spiritual dimension in education: Teaching affectively to promote cognition. *Journal of Religious Education*. 49 (3) 31-41.
- Dilthey, W. (1985). *Poetry and experience*. (Selected works, Vol. V), Princeton: N.J.: Princeton University Press.
- Dilthey, W. (1987). *Introduction to the human sciences*. Toronto: Scholarly Book Services.
- Dilthey, W. (2002). *The formation of the historical world in the human sciences*. Princeton University Press.

## References for the Thesis

- Dobson, P. (2006). *Climate: No time for blame, there is a task ahead*. In The Climate Institute (Ed.) *A common belief: Australia's faith communities on climate change*. Canberra.
- Dreyfus, H. L. (1991). *Being-in-the-world: A commentary on Heidegger's 'Being and Time'*. Massachusetts: Massachusetts Institute of Technology Press.
- Echlin, E. (1999). *Earth spirituality: Jesus at the centre*. New Alresford, U.K: John Hunt Publishing.
- Echlin, E. (2004). *The cosmic circle: Jesus and ecology*. Dublin: The Columba Press.
- Ecospirituality Foundation (2008) "Seventh Forum on Indigenous Issues". Retrieved January 10, 2006 from [www.eco-spirituality.org](http://www.eco-spirituality.org)
- Edwards, D. (1991). *Jesus and the cosmos*. Homebush, NSW: St Pauls.
- Edwards, D. (1995). *Jesus the wisdom of God: An ecological theology*. Homebush, NSW: St Pauls.
- Edwards, D. (1999). *The God of evolution: a Trinitarian theology*. New York: Paulist Press.
- Edwards, D. (Ed.). (2001). *Earth revealing-earth healing: Ecology and Christian theology*. Collegeville, Mn: The Liturgical Press.
- Ehrlich, P.R., (1986). *The machinery of nature: The living world around us and how it works*. New York: Simon & Schuster.
- Ellis, C. (1999). Heartfelt autoethnography. *Qualitative Health Research*. 9 (5), 273-277
- Ellis, C. (2005). *Autoethnography, personal narrative, reflexivity*. London: Sage Publications
- Ellis, C. & Bochner, A. (2000) Autoethnography, personal narrative, reflexivity. In N.K. Denzin & Y.S. Lincoln (Eds.) *Handbook of qualitative research* (2<sup>nd</sup> ed.). Thousand Oaks: Sage Publications.
- Emoto, M. (2004). *The hidden messages in water*. (David. A. Thayne, Trans.) Oregon: Beyond Words Publishing.
- Federal Government Australia (2007). *Environmental education for a sustainable future: National action plan*. Retrieved September 18, 2008 from [www.environment.gov.au/education/publications/nap](http://www.environment.gov.au/education/publications/nap)
- Fields, R. (2005). The time is now. Retrieved June 5, 2005 from [http://www.rainforestinfo.org.au/deep-ec/spirit of.htm](http://www.rainforestinfo.org.au/deep-ec/spirit%20of.htm).
- Finley, M. (1999). SQ 'The ultimate intelligence' Retrieved August 7, 2003 [http://www.mastersforum.com/archives/zohar/Zohar\\_Precis.htm](http://www.mastersforum.com/archives/zohar/Zohar_Precis.htm).
- Flannery, T. (2005). *The weather makers: The history and future impact of climate change*. Sydney: The Text Publishing House.
- Fowler, J. (1984). *Becoming adult becoming Christian: Adult development and Christian faith*. Blackburn Vic: Dove Communications.

## References for the Thesis

- Fowler, J. W. (1987). *Faith development and pastoral care*. Philadelphia: Fortress Press.
- Fox, M. (1991). *Original blessing: A primer in creation theology*. Santa Fe, New Mexico: Bear & Company.
- Fox, M. (1988). *The coming of the cosmic Christ*. New York: Harper Collins Publishers.
- Fox, M. (1991). *Creation spirituality: Liberating gifts for the people of the earth*. New York: HarperCollins Publishers.
- Fox, M. (2003). *Sheer joy: Conversations with Thomas Aquinas on creation spirituality*. New York: Tarcher/Putman.
- Fox, M. (2004). How the Environment Can Assist Us to Deconstruct and Reconstruct Theology and Religion. Retrieved August 23, 2004, from [www.matthewfox.org](http://www.matthewfox.org)
- Fragomeni R.N. & Pawlikowski J.T. (1994). *The ecological challenge: Ethical, liturgical and spiritual responses*. Minnesota: The liturgical Press.
- Foundation for Deep Ecology (1973). Deep Ecology Movement. Retrieved June 19, 2006 from [www.deepecology.org](http://www.deepecology.org).
- Gardner, G (2006). *Inspiring progress: Religion's contributions to sustainable development*. New York: Norton & Company, Inc.
- Gardner, H. (1998). A multiplicity of intelligences. *Scientific American*. 9 (4) 18-23.
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21<sup>st</sup> century*. New York: Basic Books.
- Garnaut Climate Change Review (2008) Retrieved October 16, 2008 from [www.garnautreview.org.au/domino/Web\\_Notes/Garnaut/garnautweb.nsf](http://www.garnautreview.org.au/domino/Web_Notes/Garnaut/garnautweb.nsf).
- Gautama, S. (2004). *Earth Spirituality: A new eco-social paradigm*. Retrieved February 19, 2006 from [www.bpf.org/tsangha/siddearth.html](http://www.bpf.org/tsangha/siddearth.html).
- Glaserfeld, E. von (1989). Cognition, construction of knowledge, and teaching *Synthese* 80(1): 121–140.
- Glaserfeld, E. von (1997). Amplification of a constructivist perspective. *Issues in Education* 3(2) 203–209.
- Glaserfeld, E. Von (1997). An Exposition of Constructivism: Why Some Like it Radical. Retrieved March 13, 2006 from [www.oikos.org/constructivism.htm](http://www.oikos.org/constructivism.htm)
- Glaserfeld, E. Von (2007). *Radical constructivism: A way of knowing and learning*. New York: Taylor & Francis Group Publishers.
- Global Forum for Spiritual and Parliamentary Leaders (1990). An open letter to the religious community. Moscow, Russia. Retrieved December 12, 2005 from [www.earthrenewal.org/Open\\_letter\\_to\\_the\\_religious\\_.htm](http://www.earthrenewal.org/Open_letter_to_the_religious_.htm).



## References for the Thesis

- Gore, A. (1993). *Earth in the balance: Ecology and the human spirit*. New York: A Plume Book.
- Gottlieb, R.S. (Ed.). (1996). *This sacred earth: Religion, nature, environment*. New York: Routledge.
- Gottlieb, R.S. (2006). *A greener faith: Religious environmentalism and our planet's future*. New York: Oxford University Press.
- Gough, N. (2002). Blank spots, blind spots, and methodological questions in educational inquiry. Unpublished paper presented at the Higher Degrees Summer School, Faculty of Education, Deakin University, 3 March 2002.
- Granberg- Michaelson , W. (Ed.) (1987). *Tending the garden*. Grand Rapids: Eerdmans.
- Granberg- Michaelson, W. (1988). *Ecology and Life: Accepting our environmental responsibility*. Waco, TX : Word Books.
- Groome, T. (1998). *Educating for life: A spiritual vision for every teacher and parent*. Allen, TX: Thomas More Press;
- Groome, T. (1980). *Christian religious education: Sharing our story and vision*. Melbourne: Dove Communications.
- Guba, E., & Lincoln, Y. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Habel, N. (Ed.) (2000). *Readings from the perspective of the earth*. Sheffield, England: Sheffield Academic Press.
- Habel, N. (Ed.) (2001). *The earth story in the psalms and the prophets*. New York: Continuum International Publishing Group.
- Hage, R., & Rauckiene, A. (2004). Ecocentric worldview paradigm: The reconstruction of consciousness. *Journal of Baltic Science Education*, 6, 60-68.
- Hallman, D.G, (Ed.). (1995). *Ecotheology: Voices from the north and south*. Maryknoll, N.Y: Orbis Books.
- Hart, J. (2004). *Environmental theology*. New Jersey: Paulist Press.
- Hatch J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.
- Hay, P. (2002). *Main currents in western environmental thought*. Sydney: University of New South Wales Press Ltd.
- Heidegger, M. (1962). *Being and time*. New York: Harper and Row.
- Heidegger, M. (1977). *Basic writings*. New York: Harper and Row.
- Hellwig, M. (1999). *Guests of God: Stewards of divine creation*. New York/Mahwah, N.J: Paulist Press.

## References for the Thesis

- Heycox, K. (Ed.) (1991). *A question of survival: Environmental issues for the 1990's*. Crows Nest, NSW: ABC Enterprises.
- Holloway, I., & Wheeler, S. (1997). *Qualitative research for nurses*. (2<sup>nd</sup> ed.). Melbourne: Blackwell Science Pty Ltd.
- Holt, N. L. (2003). Representation, legitimation, and autoethnography: An autoethnographic writing story. *International Journal of Qualitative Methods*. 2 (1) 1-22.
- Hubbard, B. M. (1998). *Conscious evolution: Awakening the power of our social potential*. Toronto, Canada: Publishers Group West.
- Hubbard, B. M. (2001). *Emergence: The shift from ego to essence*. Charlottesville, VA: Hampton Roads Publishing Company Inc.
- Hull, F. (ed.) (1993). *Earth & spirit: The spiritual dimension of the environmental crisis*. New York: Continuum.
- Husserl, E. (1965). *Phenomenology and the crisis of philosophy*. New York, NY: Harper & Row.
- Husserl, E. (1970). *The idea of phenomenology*. The Hague: Martinus Nijhoff.
- Husserl, E. (1970). *The crisis of European sciences and transcendental phenomenology*. Evanston: Northwestern University Press.
- Hyde, B. (2005). Hermeneutical phenomenology: Interpreting and understanding the expressions of human life. Melbourne: unpublished paper. Australian Catholic University, Melbourne Campus.
- Hyde, B. (2003). Lifeworld existential: Guides to reflection on a child's spirituality. *Journal of Religious Education* 51 (3), 27-33.
- Intergovernmental Conference (1997). Environment and society: Education and public awareness for sustainability. Thessaloniki. Retrieved July 16, 2005 from [www.unesdoc.unesco.org](http://www.unesdoc.unesco.org).
- Johnson, P. (2000). *On Heidegger*. Belmont, CA: Wadsworth/Thomson Learning.
- Jerusalem Bible (1966). London: Darton, Longman & Todd Ltd.
- Kelly, T. (1993). *An expanding theology: Faith in a world of connections*. Sydney: E.J. Dwyer.
- Kendell, H. (1992). World scientists: Warning to humanity. Retrieved July 23, 2005 from [www.worldtrans.org/whole/warning.html](http://www.worldtrans.org/whole/warning.html)
- Kincheloe, J. (Ed.). (2004). *Multiple intelligences reconsidered*. New York: Peter Lang Publishing, Inc.
- King, U. (1997). *Christ in all things: Exploring spirituality with Teilhard de Chardin*. Maryknoll, NY: Orbis Books.

## References for the Thesis

- Knudtson, P. & Suzuki, D. (1992). *Wisdom of the elders*. North Sydney: Allen & Unwin.
- Koch, T. (1994). Establish rigor in qualitative research: the decision trail. *Journal of Advanced Nursing*, 19, 976-986.
- Lachance, A. (1994). *Embracing earth: Catholic approaches to ecology*. Maryknoll, NY: Orbis Books.
- Leirvik, O. (1994). Our living earth in crisis – A joint call for spiritual awakening. Retrieved May 8, 2005 from [http://folk.uio.no/leirvik/tekster/ecology\\_spirituality.html](http://folk.uio.no/leirvik/tekster/ecology_spirituality.html).
- Leonard, V. (1989). A Heideggerian phenomenologic perspective on the concept of the person. *Advances in Nursing Science*, 11 (4), 40-45.
- Leunig, M. (1995). *You and me: A collection of recent pictures, verses, fables, aphorisms and songs*. Ringwood: Penguin.
- Lombaerts, H. (2002). A hermeneutical – communicative Concept of teaching Religion. Retrieved March 26, 2002 from <http://virtual-campus.acu.edu.au/2002semester1/edre703/lombaerts1r.htm>.
- Lovat, T. (1995). *Teaching and learning religion: A phenomenological approach*. Australia: Sydney: Social Science Press.
- Lovelock, J. E. (1987). *Gaia: A new look at life on earth*. New York: Oxford University Press.
- Lovelock, J. E. (1988). *The ages of Gaia: The biography of our living on earth*. New York: Norton.
- Lutheran School of Theology (2007). Web of Creation: Ecology resources to transform faith and society. Retrieved September 23, 2007 from <http://www.webofcreation.org/>
- Macy, J. (1983). *Despair and personal power in the nuclear age*. Philadelphia: New Society Publishers.
- Macy, J. (1991). *World as lover, world as self*. Berkeley: Parallax Press.
- Makkreel, R & Rodi F. (Eds.). (1989). *Wilhelm Dilthey: Introduction to the human sciences: Selected works*. (Vol 1). New Jersey: Princeton University Press.
- Marinacci, B & Krishnamurthy, R. (Eds.). (1998). *Linus Pauling on Peace: A scientist speaks out on humanism and world survival*. Scotts Valley, Calif: Rising Star Press.
- Matthews, F. (1991). *The ecological self*. London: Routledge.
- McDonagh, S. (1986). *To care for the earth: A call to a new theology*. London: Geoffrey Chapman.
- McDonagh, S. (2000). *Greening the Christian millennium*. Dublin: Dominican Publications.
- McDonagh, S. (2005). *The death of life: The horror of extinction*. Quezon City, Philippines: Claretain Publications.

## References for the Thesis

- Mc Donagh, S. (2007). *Climate change: The challenge to us all*. Dublin, Ireland: Columba Press.
- McFague, S. (1993). *The body of God: An ecological theology*. London: SCM.
- McFague, S. (1997). *Super, natural Christians: How we should love nature*. Minneapolis; Fortress Press.
- McKibben, B. (1997). *The end of nature*. New York: Anchor Books Doubleday.
- Merchant, C. (1980). *The death of nature: Women, ecology and the scientific revolution*. San Francisco: Harper & Row.
- Merchant, C. (1992). *Radical ecology: The search for a liveable world*. London: Routledge.
- Merleau-Ponty, M. (1962). *Phenomenology of perception*. London: Routledge and Kegan Paul.
- Millennium Ecosystem Assessment (2005). *Living beyond our means: Natural assets and human well-being*. Retrieved January 16, 2007 from [www.millenniumassessment.org](http://www.millenniumassessment.org).
- Milburn, C. (2008) Green issues leave students colour blind. *The Age*, November 17. Retrieved November 18, 2008 from [www.theage.com.au/national/education/green-issues-leave-students-colour-blind](http://www.theage.com.au/national/education/green-issues-leave-students-colour-blind)
- Moltmann, J. (1985). *God in creation: A new theology of creation and the spirit of God*. San Francisco: Harper & Row.
- Morris, M. (1998). 'How green are their values?' Environmental education: Teaching attitudes and students' responses. *TOPIC*, 20 (8). Retrieved February 17, 2009 from [www.nfer.ac.uk/publications/other-publications/journal](http://www.nfer.ac.uk/publications/other-publications/journal)
- Morris, M. (2002). Ecological consciousness and curriculum. *Journal of Curriculum Studies*. 43 (5) 571-587.
- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*. 40 (2) 120-123.
- Nash, J. (1991). *Loving nature: Ecological integrity and Christian responsibility*. Nashville: Abingdon Press.
- Neilsen, M. (1990). *Reaffirming life in a culture of death: A Catholic response to critical issues*. Liguori, MO: Liguori Publications.
- Neist, G. (2004). Being a young adult today: Frustration or opportunity. *INFORM* – (A pamphlet published in Sydney by the Catholic Adult Education Centre).
- Neuman, W. L. (2000). *Social research methods: qualitative and quantitative approaches*. (4th ed.). Boston: Allyn & Bacon.

## References for the Thesis

- Nollman, J. (2005). *Sanity and spirit*. Retrieved May 5, 2005 from <http://www.rainforestinfo.org.au/deep-eco/spiritof.htm>.
- O'Murchu, D. (1997). *Reclaiming spirituality*. Dublin: Gateway.
- Organisation for Economic Co-operation and Development (2008). International Schools Assessment. Retrieved February 17, 2009 from [www.oecd.org](http://www.oecd.org)
- Orr, D. (1992). *Ecological literacy: Education and the transition to a postmodern world*. Albany: State University of New York Press.
- Orr, D. (2004). *Earth in mind: On education, environment, and the human prospect*. Washington DC: Island Press.
- Palmer, S. (1969). *Hermeneutics: Interpretation theory in Schleiermacher, Dilthey, Heidegger, and Gadamer*. Evanston, IL: Northwestern University Press.
- Pope John Paul II (1986). Canberra Homily. 24<sup>th</sup> November. Retrieved June 2006 from [www.socialjustice.catholic.org.au](http://www.socialjustice.catholic.org.au)
- Patriarch Bartholomew and Pope John Paul II (2002). Declaration on protecting the environment. Jun 11, 2002. Retrieved June 16, 2006 from [www.goarch.org/news/goa.news8](http://www.goarch.org/news/goa.news8) - 31k -
- Pope John Paul II (1990). *The ecological crisis: A common responsibility*. Washington, DC: United States Catholic Conference.
- Pope John Paul II (1990). *Peace with God the creator: Peace with all creation*. (Message of His Holiness Pope John Paul II for the celebration of the World Day of Peace). Retrieved November 16, 2004 from [www.conservation.catholic.org/ecologicalcrisis.htm](http://www.conservation.catholic.org/ecologicalcrisis.htm).
- Pope John Paul II (2001). General Audience. Rome: 17<sup>th</sup> January. Retrieved June 16, 2005 from [www.vatican.va/holy\\_father/john\\_paul\\_ii/audiences/2001/documents/hf\\_jp-ii\\_aud\\_20010912\\_en.html](http://www.vatican.va/holy_father/john_paul_ii/audiences/2001/documents/hf_jp-ii_aud_20010912_en.html)
- Pope Paul VI, (1972). A hospitable Earth for future generations. Message to the Stockholm Conference on Human Environment June 1, 1972. Retrieved June 16, 2005 from [www.conservation.catholic.org/pope\\_paul\\_vi](http://www.conservation.catholic.org/pope_paul_vi).
- Porrit, J. (1984). *Seeing green: The politics of ecology explained*. London: Blackwell.
- Porrit, J. (1991). *Save the earth*. London: Dorling Kindersley.
- Postel, S. (1992). Denial in the decisive decade. (Reprinted in the Worldwatch Institute Report. 2007). New York: W.W Norton & Company.
- Radford, T. (2005). *The end is nigh, scientists warn*. The Age, p. 3. March 31.
- Rasmussen, L. (1996). *Earth community earth ethics*. New York: Orbis Books.
- Reed-Danahay (1997). Introduction. In D.E. Reed-Danahay (Ed) *Auto/Ethnography: Rewriting the self and the social* (pp. 1-17). Oxford and New York: Berg Publishers.

## References for the Thesis

- Rhoads, D. (2004). *Reading Mark, Engaging the Gospel*. Minneapolis: Fortress.
- Rhoads, D. (Ed.) (2007). *Earth and word: Classic sermons on saving the planet*. New York: Continuum Press.
- Rhoads, D. (2005). The green congregation training manual. Retrieved May, 19, 2007 from [www.webofcreation.org/Environmental%20Guide.pdf](http://www.webofcreation.org/Environmental%20Guide.pdf)
- Richardson, L. (2003). *Writing: A method of inquiry*. In N. K Denzin & Y. S. Lincoln (Eds.) *Handbook of qualitative research*. London: Sage Publications.
- Ricoeur, P. (1981). *Hermeneutics and the health sciences*. (J. Thompson, Trans, Ed.). London: Cambridge University Press.
- Robinson, T. & Chatraw, J. (2006). *Saving God's green earth: Rediscovering the church's responsibility to environmental stewardship*. Norcross, GA: Ampelon Publishing.
- Rossiter, G. (2001). Religious education as cultural interpretation. *Journal of Religious Education* 52 (4) 63-64.
- Roszak, T. (1992). *The voice of the earth: An exploration of ecopsychology*. New York: A Touchstone Book.
- Roszak, T., Gomes, M. & Kanner, A. (Eds.) (1995). *Ecopsychology: Restoring the earth healing the mind*. San Francisco: Sierra Club Books.
- Roszak, T. (1998). Ecopsychology with Theodore Roszak. Retrieved May 17, 2005 from <http://www.williamjames.com/transcript/roszak.htm>.
- Rue, P. (2004). Climate change: Our responsibility to sustain God's earth Retrieved April 2, 2007. [www.catholicearthcareoz.net/POSITION\\_PAPER.html](http://www.catholicearthcareoz.net/POSITION_PAPER.html).
- Ruether, R. (1992). *Gaia and God: An ecofeminist theology of earth healing*. San Francisco: Harper & Row.
- Rundell, J.F. (1995). Gadamer and the Circles of Hermeneutics. In D. Roberts, (Ed.,) *Contemporary German Social theory: Gadamer, Habermas, Luhmann*. Melbourne: Melbourne University Press.
- Russell, C. (1999). Autoethnography: Journeys of the Self. *Experimental pp.275-314. Ethnography*. London: Duke University Press
- Siddhartha, G. (1951). Earth Spirituality: A new eco-social paradigm. Retrieved February 4, 2009 from [www.Earth Spirituality- A New Eco-social Paradigm.htm](http://www.EarthSpirituality-ANewEco-socialParadigm.htm).
- Sagan, C. (1980). *Cosmos*. New York: Random House.
- Santmire, H. (1985). *The travail of nature: The ambiguous ecological promise of Christian theology*. Philadelphia: Fortress Press.

## References for the Thesis

- Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Science*. 8 (3) 27-37.
- Sarantakos, S. (1998). *Social research*. (2<sup>nd</sup> Ed) Melbourne: MacMillan Education.
- Schaeffer, F.A., (1970). *Pollution and the death of man: The Christian view of ecology*. London: Hodder and Stoughton.
- Schleiermacher, F. (1977). *Hermeneutics: the handwritten manuscripts*. Missoula, Montana: Scholars Press.
- Schumacher, E.F. (1975). *Small is beautiful: Economics as if people mattered*. New York: Harper & Row.
- Seed, J., Macy, J., Fleming, J., & Naess, A., (1988 ). *Thinking like a mountain: Towards a council of all beings*. Philadelphia: New Society Publishers.
- Seed, J. (2005). *Spirit of the earth* Retrieved May 5, 2005 from <http://www.rainforestinfo.org.au/deep-eco/spiritof.htm>.
- Sessions, G. (Ed.). (1995). *Deep ecology for the twenty-first century: Readings on the philosophy and practice of the new environmentalism*. Boston: Shambhala Publications, Inc.
- Sharkey, P. (2001). Hermeneutical phenomenology. In R. Barnacle (Ed.) *Phenomenology: Qualitative research methods* pp.23-24. Melbourne: RMIT University Press.
- Sheldrake, R. (1991). *The rebirth of nature: The greening of science and God*. New York: Bantam Books.
- Simkins, R.A. (1994). *Creator and creation: Nature in the worldview of Ancient Israel*. Massachusetts: Hendrickson Publishers.
- Sleeth, J. (2006). *Serve God, save the planet: A Christian call to action*. White River Junction: Chelsea Green Publishing.
- Smith, C. (2005). Ecoliteracy: The most important literacy of all. Unpublished paper, Australian Catholic University, Melbourne Campus.
- Spinelli, E. (1995). *The interpreted world: An introduction to phenomenological psychology*. London: SAGE.
- Spretnak, C. (1999). *The resurgence of the real: Body, nature, and place in a hypermodern world*. New York: Routledge.
- Steiner. G. (1989). *Martin Heidegger*. Chicago: The University of Chicago Press.
- Suzuki, D. (1997). *The sacred balance: Rediscovering our place in nature*. St Leonard: Allen & Unwi
- Suzuki, D. & Vanderlinden, K. (1999). *You are the earth*. Melbourne: Allen & Unwin
- Stern, N. (2006). *The Stern review report*. London: HM Treasury.

## References for the Thesis

- Swimme, B. (1984). *The universe is a green dragon: A cosmic creation story*. Santa Fe, New Mexico: Bear & Company.
- Swimme, B. (2002). *The hidden heart of the cosmos: Humanity and the new story*. Maryknoll New York: Orbis Books.
- Swimme, B., & Berry, T. (1992). *The universe story: From the primordial flaring forth to the ecozoic era: A celebration of the unfolding of the cosmos*. San Francisco: HarperCollins Publishers.
- Tacey, D. (1995). *Edge of the sacred: Transformation in Australia*. Melbourne: Harper Collins Publishers.
- Tacey, D. (2000). *Reenchantment: The new Australian spirituality*. Melbourne: Harper Collins Publishers.
- Tacey, D. (2004). *The spirituality revolution: The emergence of contemporary spirituality*. Melbourne: Harper Collins Publishers.
- Thomashow, M. (1996). *Ecological Identity: Becoming a Reflective Environmentalist*. Massachusetts: First MIT Press.
- Toolan, D. (2001). *At home in the cosmos*. Maryknoll: Orbis Books.
- Toohy, C. (2006). *Stewardship: Handling God's creation responsibly*. Rerum Novarum Lecture for 2006. Melbourne. Retrieved March 15, 2007 from [www.catholicearthcareoz.net](http://www.catholicearthcareoz.net).
- Treston, K. (2003). *Walk lightly upon the earth*. Brisbane: Creation Enterprises.
- United Nations Climate Change Conference in Bali (2007). *Climate our main challenge: Rudd*. Retrieved December 10, 2008 from [www.smh.com.au/news/environment/climate-our-main-challenge](http://www.smh.com.au/news/environment/climate-our-main-challenge).
- United States Catholic Conference (1992). *Renewing the earth: An invitation to reflection and action on the environment in light of catholic social teaching*. Washington D.C. Retrieved February 16, 2000 from [www.usccb.org/sdwp/ejp/bishopsstatement.shtml](http://www.usccb.org/sdwp/ejp/bishopsstatement.shtml).
- United States Catholic Conference (1996). *Let the earth bless the lord: God's creation and our responsibility. A catholic approach to the environment*. Washington D.C. Retrieved June 26, 2000 from [www.conservation.catholic.org/resources.htm](http://www.conservation.catholic.org/resources.htm).
- United States Conference of Catholic Bishops (2001). *Global climate change: A plea for dialogue, prudence, and the common good*. Retrieved March 9, 2006 from [www.usccb.org/sdwp/international/globalclimate.shtml](http://www.usccb.org/sdwp/international/globalclimate.shtml).
- United Nations Conference on Environment and Development (1992). Retrieved October 13, 2005 from [www.un.org/geninfo/bp/enviro.html](http://www.un.org/geninfo/bp/enviro.html).
- Uhl, C. (2004). *Developing ecological consciousness: Path to a sustainable world*. Lanham, MD: Rowman & Littlefield Publishers, Inc.



## References for the Thesis

- Van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany, N.Y: State University of New York Press.
- Van Manen, M., & Levering, B. (1996). *Childhood's secrets: Intimacy, privacy and the self reconsidered*. New York: Teachers College Press.
- Victorian Curriculum and Assessment Authority (2005). *Victorian Essential Learning Standards: Overview*. East Melbourne: VCAA.
- Victorian Curriculum and Assessment Authority (2004). *Study Design Text & Traditions*. East Melbourne: VCAA
- Victorian Curriculum and Assessment Authority (2005). *Study Design Philosophy*. East Melbourne: VCAA.
- Victorian Curriculum and Assessment Authority (2007). *VCE Assessment Program*. East Melbourne: VCAA.
- Victorian Curriculum and Assessment Authority: *Statistical Information: VCE Assessment Program* (2007). East Melbourne: VCAA.
- Victorin-Vangerud, N. (2008). *This world of waters: Ecotheology and Rachel Carson's oceanic vision*. Retrieved June 25, 2008 from <http://www.wsrt.net.au/seachanges/volume3/html/vangerud.html/>
- Wagner, J. (1993). Ignorance in educational research: Or, how can you *not* know that? *Educational Researcher*, 22 (5) 15-23.
- Wainwright, E. (2002). Sea changes: Networking across oceans in the Pacific region. *Journal of Feminist Studies in Religion*, 18 (1) 75-78.
- Watson, J.S (2001). Making sense of the stories of experience: Methodology for research and teaching. *Journal of Education for Library and Information Science*. 42 (2), 137-148.
- Wessels, C. (2003). *Jesus in the new universe story*. New York: Orbis Books.
- White, L. (1967). The historical roots of our ecological crisis, *Science*, March 10, 1203-1207.
- White, R. (1995). Spiritual foundations for an ecologically sustainable society. *Journal of Baha'i Studies* 7 (2) 47-74.
- Wilson, E. (1992). *The diversity of life*. Mass: Harvard University Press
- Wilson, E.O. (2002). *The future of life*. New York: Vintage Books.
- World Commission on Environment and Development (1987). *From One Earth to One World*. Oxford: Oxford University Press.
- World Scientists Warning to Humanity (1992). Retrieved December 10, 2006 from [www.schoolofwisdom.com/environment/science.html/](http://www.schoolofwisdom.com/environment/science.html/)
- Worldwatch Institute (2007). *Vitals signs 2006-2007: The trends that are shaping our future*. New York: W.W. Norton & Company

## References for the Thesis

Zimmerman, M. (1994). *Contesting earths' future: Radical ecology and post modernity*. Berkley: University of California Press.

Zohar, D. & Marshall, I. (2000). *SQ: Spiritual intelligence: The ultimate intelligence*. London: Bloomsbury.

## **Appendix 1. Sample questions for the Semi-Structured Interviews**

### INTERVIEW QUESTIONS

Research Question: What is the lived experience for students participating in a teaching-learning unit which focuses on Spiritual Ecological Consciousness?

1. Tell me about your response to what you have learned in our study together over the past few months.
2. Tell me about your interest in the lessons over the last few months.
3. Tell me about the most significant thing you have learned.
4. Tell me about your experience about learning this topic whether it was new and interesting or was it something you already had a good understanding of?
5. Tell me about where you are now in your understandings about the connectedness of all creatures.
6. Tell me how your thinking has changed since we began our study of spiritual ecological consciousness?
7. Tell me about your understanding of God in creation.
8. Tell me about creation spirituality. What does it mean for you?
9. Tell me about how conscious you are of your connectedness to all life on Planet Earth and the universe now.
10. Tell me what you see as the most significant change in where you were in your thinking to where you are now?
11. Tell me about your experience of participating in a class that focused on spiritual ecological consciousness.
12. Tell me how you will view the trees and the flowers and the water and the stars and the ants differently?
13. Tell me your thoughts on the opportunity to learn about this topic?
14. Tell me if you think you will try to learn more about spiritual ecological consciousness?

## **Appendix 2:1 Sample Interview with the Creation Theology Students.**

### INTERVIEW 1: Robert

1. **TEACHER:** Tell me about your response to what you have learned in our study together over the past three months.

**STUDENT:** We learnt about the scientific way which I already knew but we went into it in more depth, then went into the catechism which I'd never heard about so that was new altogether and notes on eco-spirituality and the beginning of the earth and different interpretations of different perspectives and how the creation stories of the time were influenced by the culture of the time.

2. **TEACHER:** How did you feel when you learnt you were made of the same stuff as the earth?

**STUDENT:** I hadn't actually heard that one before, it sort of makes sense that everyone is made of the stardust at the start of the earth but just the same as everything else, sort of a different perspective.

3. **TEACHER:** Yes. Tell me about your interest in the lessons over the last few months.

**STUDENT:** I was initially put in because of the scientific...sort of enjoy the sciences, so that was a pretty good lead in and then we sort of went in depth to the other cultures. I just like looking at the different perspectives on that, creation theology, that was really good because we had everyone's project put our differently, actual creation stories which meant that you got to see creation stories from all around the world. You got to see how the creation story was influenced by the environment they were in.

4. **TEACHER:** How did you then understand the Judaic-Christian story of creation in the light of your study of the other creation stories? Did you think about that differently then?

**STUDENT:** A little bit, it was good to know about the two stories, how they came from different spots and why they are different but you see the similarities underlying them.

5. **TEACHER:** Tell me about the most significant thing you learned.

**STUDENT:** Just like I was saying before, that everyone's made of the same stuff, just gives races a better meaning. Everyone is made of the same stuff and even the animals and other stuff is made from it too, so everyone's made of the same stuff going back a long way.

6. **TEACHER:** Is that a new idea, a new concept?

**STUDENT:** Yeh

7. **TEACHER:** Tell me about your experience of learning this topic whether it was new and interesting or was it something you already had a good understanding of?

**STUDENT:** Creation theology, well I'd only heard the scientific and the Christian/catholic creation story so I hadn't really heard of anything else and sort of just knowing the story, not any theology behind it. I didn't really think about the spiritual side of it.

8. **TEACHER:** Do you remember what theology means?

**STUDENT:** Study of spirituality?

9. TEACHER: Tell me about your thoughts on the evolution of creation as we know it today.

**STUDENT:** Well basically the first bit that everyone agrees on is that it started by some great force, some people don't know what it is, some people name it as God. And even the scientific creation started with a great force, they don't know what it is but in the catholic story everything is just made on separate days. In the evolution story, everything sort of evolved from one thing to another due to circumstances and in West African cosmology everything was just put in place. Somehow a God was made, there were twins in the womb and the womb got changed to the earth and then they came down to the earth so they were already there before they were put there.

10. TEACHER: Tell me about where you are now in your understandings about the connectedness of all creatures.

**STUDENT:** Well it's the stardust because everything is made from the same stardust, everything's connected, mainly all living things are connected because they are living, also non-living things are made from the stardust as well.

11. TEACHER: Do you see the earth itself as a living thing? Like the Planet Earth, is it living?

**STUDENT:** Yeh, even though it is not living the same way as other things, it's got living things on it and it's living itself, it's got magna and all that stuff underneath it. It's moving around and holds life onto it too, that's the important part, otherwise nothing would be here anyway.

12. TEACHER: The topsoil, can see you see the connectedness of the earth with the creatures of the earth?

**STUDENT:** Well it sustains it so basically it's more the earth sustaining the creatures above it than the creatures sustaining the earth.

13. TEACHER: In relation to that, what does the word interdependence mean to you?

**STUDENT:** That's when something depends on another to keep it's livelihood like when they had the crocodiles and they had little birds to pick the fleas off. The birds depend on the crocodiles for food and the crocodiles depend on the birds to pick the fleas off.

14. TEACHER: Tell me how your thinking has changed since we began our study of spiritual ecological consciousness?

**STUDENT:** Well I've sort of got a more knowledgeable opinion, a lot more than I did at the start and your sort of perspective on it changes, your looking at it from a different angle, your looking at it from a different view.

15. TEACHER: Do you think the way you live and act will change as a result of your increased knowledge?

**STUDENT:** Yeh, I probably can. Like sometimes you can just litter and not actually think about it. Later you can drop something and think of where it might go and so you pick it up and put it in the bin.

16. TEACHER: Tell me about your understanding of God in creation?

**STUDENT:** God was the undermined force that started everything and might have nudged things in certain ways, he definitely got things started.

17. TEACHER: And today, did God create and that was it or do you see God as creating all the time?

**STUDENT:** Like I said he still nudges things along, there's new species evolving all the time.

18. **TEACHER:** Since you are a scientific person, does it strike you as strange when you hear that term from Albert Einstein, “that science without religion is lame, religion without science is blind”?

**STUDENT:** Yeh, that would make sense. I like that one because it’s true and it’s also another interdependence on each other.

19. **TEACHER:** And in your scientific studies do you find it strange that religion has something to say to it?

**STUDENT:** No, not really because there was a period where everyone believed in religion and then everyone believed in science and now they are sort of molded together almost like everyone is trying to get in the same gear,

20. **TEACHER:** Tell me if you think your appreciation of the value of every living thing has changed since we began our course?

**STUDENT:** A little bit because of the interdependence. Life if one animal dies, it could result in a shift of the whole food chain. We sort of learnt that in science as well which brings it back to religion again. So like everything depends on another thing. I heard that people could not live without trees but trees could live perfectly well on their own.

21. **TEACHER:** Yes, that makes us very dependent on them, doesn’t it?

Tell me about creation spirituality? What does it mean for you?

**STUDENT:** I think it would mean belief in the creation story, what happened when creation started and the different perspectives from the different religions.

22. **TEACHER:** Tell me about how conscious you are of your connectedness to the earth?

**STUDENT:** Well, I’m connected just like everyone else is connected to the earth because you can’t live without the earth. You’re connected to the trees because you need them to breathe and you are connected to anything you eat because you need that to stay alive. You are connected to the atmosphere because that’s where the rain comes from which is the water we need more than food.

23. **TEACHER:** Look at you pre-reflection comments and your post-reflection comments, tell me what you see as the most significant change in where you were in your thinking to where you are now?

**STUDENT:** It was easier to see what we are doing wrong in the community. In the pre-reflection you had to think about it, in the post reflection you thought that’s one, there’s another one, you sort of ran out of room sometimes.

24. **TEACHER:** So you moved from your first position, like change through education, which probably wasn’t very different from your first position but perhaps more defined.

**STUDENT:** Yes sort of in the same position but you know more about it.

25. **TEACHER:** Tell me of any change in your understanding and appreciation of all things created as an expression of God’s love for us?

**STUDENT:** Well basically I would have to say that God loves us so much that he created us and he created things to keep us living. If he didn’t love us we would have just been left alone to live without food and water and stuff.

26. **TEACHER:** Tell me about your experience of participating in this class that focused on spiritual ecological consciousness.

**STUDENT:** I reckon everyone responded pretty well. While some people could be pretty apprehensive the whole class just took it in their stride, just listened to it, sometimes sort of deciphered it to make an opinion.

27. **TEACHER:** Tell me how you will view the trees and the flowers and the water and the stars and the ants differently?

**STUDENT:** Uh, you sort of do and you don't. You sort of realize they are made of the same stuff and that you are dependent on them. But sometimes you just don't take any notice of them, you just walk past them or you don't look up. But when you do you just sort of have a deep thinking like it was good when we had time to ourselves, we just lay down on the mat. You sit there in the silence and think of all the trees and nature around you and so that was good.

28. **TEACHER:** Tell me your thoughts on the opportunity to learn about this topic?

**STUDENT:** Yeh, it's been pretty good and we had to move pretty quick because it is a big subject and we could spend a lot of time on it as you said. It's been good to learn because it gives you a different perspective on how things were made and how you're story that you believe started off.

29. **TEACHER:** Tell me if you think you will try to learn more about spiritual ecological consciousness?

**STUDENT:** Probably not over the next couple of years because I'll have enough on my plate but I might think about it later on.

30. **TEACHER:** Do you see yourself, now you have got a foundation, you hear things on the news, I don't necessarily mean study, as you hear things you can place it?

**STUDENT:** Yeh, that happens a lot. You hear things on the news that other people have no idea about but you automatically know what it is because you've got the foundations on it. That's what makes you on top.

## **Appendix 2:2 Sample Interview with Creation Theology Student**

### INTERVIEW 5: Sharon

1. TEACHER: Welcome to this interview. The first thing I would like to ask you is for you to tell me about your response to what you have learnt in our study together over the last few months.

STUDENT: I think the study has opened my eyes a bit to the way the world is and the way we need to start looking after it. Otherwise down the track it will get pretty hairy. Like de-forestation and stuff like that and pollution. I've learnt a lot about that. I always knew it was happening but not to this depth.

2. TEACHER: You talked about environment and understanding environment. Is there another dimension to that apart from the survival aspect?

STUDENT: Well survival, but you don't want to just be surviving you want to have a good place to live. So it's not just surviving but also making it a good place.

3. TEACHER: Tell me about your interest in the lessons over the last few months.

STUDENT: I was most interested when we did all the different "Creation" stories. I found that most interesting having no experience with any other one beside "Christian" creation stories. Just hearing all the other ones I found interesting to see different aspects and different takes on how the world was created, how different things were created.

4. TEACHER: In those creation stories is there anything that stands out for you?

STUDENT: There were a lot of similarities between all of them. Normally it was just darkness and then slowly all the things were created. And normally in most of them "man" was the last thing to be created. That's what I found in most of them.

5. TEACHER: O.K. Tell me about the most significant thing that you have learnt. You mentioned the "creation stories".

STUDENT: Probably that is the one that got to me the most I think. Just probably because I was more interested in that and it appealed to me more.

6. TEACHER: What is the most interesting thing you have learnt about yourself while you were learning this topic.

STUDENT: Probably just to realise that some things aren't always as they appear. Like with the "Creation" stories, it is obviously that they aren't 100% true but there is truth within them and that is the point of the story. It's not that this happened definitely that things have happened within the stories.

7. TEACHER: Could you tell me about your experience about learning this topic. Was it new and interesting or was it something you already had a good understanding of?

STUDENT: No it was very new. Well some of it. Learning about the earth.... At the primary school I went to they were heavily into learning about the earth, because I went to St. Francis of the Field P.S. so the farm and all that..., so a lot of it was quite new. It was pretty interesting I found.



8. TEACHER: The “Scientific” explanation of creation. You managed to tie that into the Judea-Christian story?

STUDENT: Yeah sort of. You can’t say it was 100% right but if you say the “Big Bang” happened and then slowly all these things developed. Well it was obviously caused by something or someone so that’s sort of how the Christian story ties in. That God created this and made this to happen even though it wasn’t as it was written in the Bible. Yeah, that’s how I think it tied it in together.

9. TEACHER: So you are happy with that, where you arrived at?

STUDENT: Yeah, I wasn’t at the beginning but I sort of got there and that’s where I am now and that’s what I believe it happened.

10. TEACHER: How did you understand the two stories of creation?

STUDENT: Well I sort of never really believed the “Genesis” story 100% because like “within 7 days”, it just doesn’t make sense, even though God is a powerful being, but still you would think it would take... well that’s what I think anyway.... It would take so many more years to develop it and stuff. So putting them together that way makes more sense.

11. TEACHER: Well I suppose, there’s a possibility that a day is actually an era...

STUDENT: Yeah, well we don’t know.

12. TEACHER: But then God being God he might have created in less and he might not have taken 7 days.

STUDENT: It sort of depends on the person and how they look at it I suppose... that’s just how I look at it.

13. TEACHER: Thank you very much. Was there any particular part that you didn’t find interesting in your 6 weeks of learning.

STUDENT: It was all new to me so I sort of took it all on board. Even though I had heard some of it a little bit before, I sort of took it all on. It was all interesting I think. And finding out what we have to do to help the planet and stuff.

14. TEACHER: O.K. Tell me about the thoughts of the “evolution of creation” as we know it today. And you might think you’re going back over it but I would be pleased if you would.

STUDENT: Just that it has taken so many millions of years to get to where we are now and it didn’t happen overnight sort of thing. Well I don’t believe it happened in 7 days I think it would have taken so much longer.

15. TEACHER: Tell me about where you are now in your understanding about the “connectedness of all creatures”... what do you understand about that term.

STUDENT: I think it was with the “Scientific Creation” story we all started from stardust. I believe there is a connection there with us all originally being made from the same thing. So I think that is how we are all connected.

16. TEACHER: Tell me about our role in the creation story.

STUDENT: We have to look after it because I think of it as...it's not ours, we don't own the world we are just caretakers so I believe we have to look after it and keep it going sort of thing.

17. TEACHER: Tell me about how your thinking has changed since we began our study of spiritual ecological consciousness... where is the spiritual dimension in what you are saying?

STUDENT: I didn't think much about it and it never occurred to me that we would be all connected. After learning this I realised I have a connection to everything.

18. TEACHER: Do you think when we talk about spiritual ecological consciousness, with the understanding that you have offered of our physical connectedness because we are all made of the same stuff...so to speak, is there a sense of that there a spiritual connectedness to other people or God ...?

STUDENT: Definitely if we are all connected physically there has to be some other connection it can't just be physical it sort of has to be connected emotionally etc.

19. TEACHER: O.K. let's move on. Tell me about your understanding of God in creation.

STUDENT: Like I said before I don't think it was overnight but He caused... it caused something to happen which caused a chain reaction and then we're here today sort of thing.

20. TEACHER: So you can understand Gods place in the Genesis story? But when you look at now the scientific evolutionary story of creation, where do you see God in all that.

STUDENT: At the beginning he started everything. I believe there has to be something there. We can't find any reason for the "Big Bang" theory or any of those Scientific" theories to happen, so there must have been something that caused it to happen and I just believe it's God.

21. TEACHER: So it's a very strong faith position there and no doubt that will grow you know, as you go on.

STUDENT: Yeah.

22. TEACHER: Tell me if you think your appreciation of the value of every living thing has changed since we began our course.

STUDENT: Yeah, I'd say I probably care for the environment and things like that more often now just doing little things like going out of your way to put rubbish in the bin or recycling just around the house and stuff like that. Yeah, I sort of realised you have to start making changes to your life... nothing big... but if everyone does their little bit it will help.

23. TEACHER: Have you noticed any change in the way you think about other creatures?

STUDENT: I don't know... like sometimes you think some creatures are bad because they eat other creatures or like that crocodile that went for a baby and the grandmother

jumped on its back, after doing this, you realise that everything has its place and that is what it's there to do. It's not that it is bad or it's good, it's doing what it was created to do. Obviously going for the baby, not being specific, but it was going for food, not so much evil and good anymore so it's just a nice blending.

24. TEACHER: Yeah. Have you changed your position about your connectedness to creation and other creatures?

STUDENT: Yeah, sometimes you would be standing around and just break off a branch and play with it but don't think what I'm doing. So you'd be standing around not thinking and just take it off but before you do it you realise... hey, that's a living thing and don't go messing with it sort of thing.

25. TEACHER: So, how do you feel about trees being chopped down?

STUDENT: I don't feel pain and stuff like that but I don't think it would be physical pain but you would realise it in your head and it would be emotional pain. That's what my theory would be from that.

26. TEACHER: You would have that sense of loss!

STUDENT: Yes. You realise something is missing sort of, yeah.

27. TEACHER: Tell me about Creation Spirituality and what does it mean to you?

STUDENT: Just that we are all connected with all creation whether it be physical, emotional or whatever. I think we are all connected somewhere.

28. TEACHER: Do you see yourself as a "spiritual" person?

STUDENT: I guess so. I think so, probably.

29. TEACHER: So would you like to comment on that? You might think you're repeating yourself but don't worry about that.

STUDENT: I don't know, I don't know what to say.

30. TEACHER: Think about when you were doing your pre-reflection task and then you did a post-reflection, could you comment on any change in you.

STUDENT: Was that the green sheet? Yeah I didn't do the pre-reflection sheet because I wasn't here. But I can tell you how I felt. Definitely from the start of the course and during the course I was definitely feeling different and I would have had different views on the topics that I read on the sheet. My views would have changed.

31. TEACHER: You were aware of that as it started to unfold?

STUDENT: Yeah I could tell my answers would have been totally different if I had of done it before to the ones I had written down after. Some would be the same but there are also some that would have changed just from what I'd learnt in the class.

32. TEACHER: That's the aim of education really isn't it?

STUDENT: Mmmm.

33. TEACHER: Can you tell me about any change in your understanding of appreciation of all things created as an expression of God's love for us.

STUDENT: I don't know whether it would be God's love for us, because I can't say that we were the "thing" that was created, so that everything else around us was so "we" could appreciate it. Maybe everything else was created so it could appreciate us if you can understand what I'm trying to say. If that was the case, that things were created for us, we have to take care of them so they can still be there and around in however many years, and try to preserve everything.

34. TEACHER: What did you think of those chapters on Job we were reading? Do you remember them?

STUDENT: Yes, I think they just taught us that we may not understand things that happen in our life but they obviously happen for a reason. Something causes them or they are caused by, you know. We may not understand it but they are there for a reason.

35. TEACHER: When I first studied it I thought how amazing it was that in that time, there were eagles, donkeys and wild goats... I thought that back then there would be other creatures you know.

STUDENT: I was amazed at the way it was written. It would be so hard to find someone who could write like that. It's just incredible. Just the description and the language used. Just to touch your emotion and stuff. Like you said... "Where were you when I created such and such" ... it's just amazing that someone all that many years ago could write that well. It would be hard to find someone who could write with that passion today. You would probably struggle.

36. TEACHER: Yes. And there were lots of connections there with creatures of the earth and our place. Could you say something about your experience of participating in that particular class as a spiritual ecological consciousness class.

STUDENT: Yes. I think just everyone's different views and stuff. It had a real impact on the class because obviously we are not going to have the same thinking. And just hearing other peoples' thoughts and their views on what we were learning in class made you sort of think about it more in depth.

37. TEACHER: Think about it a bit more?

STUDENT: Yeah, I think we had a very good class and everyone was committed to it and offered ideas.

38. TEACHER: Coming out of people's background and experience they were able to ask some good questions. I've asked this question but just to put it in sequence, tell me how do you view the trees and the flowers and the water, and the stars and the ants differently?

STUDENT: I would have more respect. It's not that I would go around killing stuff aimlessly, but I would probably have a bit more respect for the earth and plants and the animals now and will probably go out of my way a little bit more to help.

39. TEACHER: Tell me of your thoughts on the opportunity to learn about this topic? When you first heard this was the topic we were going to do what was your thinking.

STUDENT: I thought it was going to be sort of 'green', 'save the whales' but as we got going it sort of... looking at the creation stories and the spirituality side of, not just telling us what to do but showing how we are connected, it sort of opened my eyes not to think like that.

40. TEACHER: One of the things that I have been trying to work out is how to address this ecological crisis we are experiencing. I don't know whether you remember me saying to you "We look after what we love"?

STUDENT: So we care for it more.

41. TEACHER: Yeah. So can you see the difference?

STUDENT: Yes, showing people and showing them how to "love", whereas the first one is "We should do this and we should do that". The second one is loving and being more open.

42. TEACHER: You know what I mean There are different ways to approach. For the purposes of this research can you see the difference?

STUDENT: Oh definitely, but I don't think either one is right or wrong. One is going to appeal to more people, a certain type of people, and the other one will appeal to another type of people. You have to have both.

43. TEACHER: You're quite right there! Tell me if you think you will try to learn more about spiritual ecological consciousness?

STUDENT: I don't know whether I will try but I probably will just in growing up. You probably learn more going through life and to care for things more and stuff like that.

44. TEACHER: Can you explain that idea to me?

STUDENT: Some of them we can benefit quite a lot. It's not just helping the environment it also comes back to us and you get a little bit back. I think when I go to build a house or something it will have to come back on the person and you're more likely to do it sort of thing.

45. TEACHER: There was some article the other day about the "year of the concrete slab" and now they are say go back to stumps because it aerates under the house and keeps you and the earth more healthy.

STUDENT: If that is better for the house they will be more likely to do that than put it on concrete.

46. TEACHER: Is there any one thing that sticks in your mind about the class that you would like to comment on?

STUDENT: Probably what I've learnt would be the "creation story", but that is just me because I found that most interesting. But I thought that the class we had was pretty good. It made everything. So if you didn't have a class like that I don't think it would have been pulled off as well. If you had negativity in the class, which I don't think we had any of, it wouldn't have been as good, it wouldn't have been a learning experience as it was. With the class we had that will stick with me just the positivity.

47. TEACHER: Thank you for sharing with me.

## **Appendix 2:3 Sample Interview with Creation Theology Student**

### INTERVIEW 4: Annie

1. TEACHER: Thank you very much for participating in this research. Could you tell me a bit about your response to what we have learnt in our study together over the past few months, what it meant to you.

STUDENT: The “Creation” unit has been really interesting just giving me another look inside the bible and the different messages that are conveyed through it and also how people think about things at the time of writing them. I really enjoyed the creation unit, especially looking at the other creation stories as well.

2. TEACHER: If you go back to the beginning of the unit where we looked at the scientific account of the text. Could you comment on that?

STUDENT: The scientific account. It was good to see how the bible and the church parallel the ‘scientific’ story of creation. Like how you can interlink them and how they do join together even though at first glance they don’t seem to which is something I also liked. It was also good to get a bit more of an insight into the actual scientific account of creation.

3. TEACHER: When you mentioned before about the creation stories, that you liked them. What was it about them that spoke to your mind?

STUDENT: What I liked about them was just how they told about different cultures and different people and it’s just so interesting to see how somebody was thinking, like thousands of years ago, when humankind was deciding on how they came to be on this planet. And someone has thought well maybe this happened. Especially it’s really interesting to see the similarities between the stories and even between our own creation story, and say like the Greek creation myth or the Hindu creation myth or whatever. Just to see the similarities are there.

4. TEACHER: When you learnt about those other creation stories did that sort of cause you to doubt the value of the Genesis creation story about the earth?

STUDENT: Not doubt the value as such, just I sort of see them all on the same level. For me personally I don’t take the Genesis story word for word, just like I don’t take say the Chinese creation story word for word. It’s just the similarities between them is what I more like to stick to, just because I suppose if more than one thing says something it is bound to have more truth to it than something else. So that is what I liked about them.

5. TEACHER: Thankyou. Can you tell me about your own interest in the lessons over the last few months?

STUDENT: My interests. Um, I don’t know, I found it all very interesting. Especially the way stories have been changed is what I’m really interested in. How people take a story word for word today that was I suppose created itself thousands of years ago and it is really surprises me how confident people are that that story is still true and still sticks to the truth. So I just found that sort of interesting. Like the human aspect of the stories is what I find interesting.

6. TEACHER: Good. Tell me about your place in the stories.

STUDENT: Um, the 'scientific' account you can see yourself as that, in a scary way. But the other stories, they seem so fictional. As in with our oral presentation we showed you, with just my group of friends how we saw that was just so fictional. So I couldn't really see myself in those stories.

7. TEACHER: What about when you did the "Cosmic Walk"?

STUDENT: The "Cosmic Walk" is very scary to actually accept that you are part of that because of how big it is and how large it is, and how, not insignificant we are, but how small we are. How we are like a "dot" on the page of a novel. So it is, I don't know, something scary to accept that you are a part of, but sometimes I believe and think about that but it gets too much and you just have to shut it out. If that makes sense!

8. TEACHER: It makes a lot of sense.

STUDENT: Like a lot of people would be too scared to actually care about because it is pretty big.

9. TEACHER: I can understand what you mean. OK. Can you tell me about the most significant thing you learnt?

STUDENT: It's not sort of "one" thing.... The most significant thing... it's like you're learning all the time sort of thing and you're just adding to different things and different views. Just in the "creation" unit, everyone has their own interpretation of stories. I think that is something everyone has to accept that someone is going to interpret a story different to someone else. So they mean different things to different people.

10. TEACHER: Alright then. OK. Tell me about your experience about learning this topic.

STUDENT: Um, I had a fair understanding of the creation story as such. Like the creation throughout is pretty much you learn that in primary school I suppose, or somewhere along the line. I'm guessing everyone generally is supposed to know. It is interesting to go deeper into the levels and see the similarities between creation stories, and then the Cosmic Walk was something I didn't have access to. Like we haven't been taught exactly that sort of thing, so I really liked that.

11. TEACHER: Again, it's your own involvement in it that makes the difference.

STUDENT: That's what I liked about our class. We could bounce ideas off each other and you just see people have different ideas and different ways people think.

12. TEACHER: Tell me about your thoughts on the "evolution of creation" as we know it today.

STUDENT: I guess I'm a bit sceptic I suppose is the word, about the whole creation story, just because... Do you mean the "scientific" one or the "biblical" one?

13. TEACHER: The scientific one.

STUDENT: The scientific one...I don't know... It's just amazing that people can figure that sort of thing out and you can't take it all word for word, but I don't know, it's sort of hard to get your head around that to think that billions of years ago, we say the

word 'options' but we don't really know what it means, like billions of years ago there was an explosion and then we are here. That is just... I don't know... it's science but it's not. It's hardly 1 + 1 is it?

14. TEACHER: You're right there! OK. Tell me about where you are now about the connectedness of all creatures.

STUDENT: Um... where I am... I don't know... I believe in our environment and I understand that we are destroying it. I'm trying to see the connectedness in between everything and it is sometimes hard especially living in the city or Bendigo because there is no real connection here. But for me personally, I would like to be more connected to the environment. I reckon I would be quite happy not living with cars and stuff. I would be happy anyway.

15. TEACHER: You have said you would be happy living in a more user-friendly environment.

STUDENT: I believe society needs to stop seeing itself above nature, animals and trees and that we think too much of ourselves. Who are we to say we are more important than the animals or trees or the ocean or anything like that. It is so sad to think of everything that has been lost to give way to concrete. That's where I am at.. And doing this creation unit has helped me understanding. It has deepened it and I'm further along than I was when I started the unit.

16. TEACHER: OK. Tell me how your thinking has changed since we started our study on spiritual ecological consciousness? Do you understand the term and can you express your view.

STUDENT: I don't think I'm very spiritually connected with the earth. I'm just not but I would like to be and I think learning more about it has helped.

17. TEACHER: How do you see God in relation to creation?

STUDENT: I see God is the creation. I don't see God up there as some figure saying 'This will be and it will be'. I see him more around us as a being in everything and making everything move. And more moving around and not sort of ... I don't know. You can't really place a figure on God.

18. TEACHER: One last question. How did you hear the words printed in the book of Job, "Where were you when I made the foundations of the earth"? How did that affect you?

STUDENT: That was very interesting because that was a very human context that it was placed into. It was very much the authority figure speaking down at the lower person. And that's not really where I see God at.

19. TEACHER: Thank you so much for talking with me today.

STUDENT: It's been good.



### **Appendix 3:1 Sample Interview with an Earth Spirituality Student**

#### INTERVIEW 2:Paul

Thank you for joining me today.

**TEACHER:** How do you understand “Earth Spirituality”?

**STUDENT:** “Earth Spirituality” for me is understanding, caring and knowing our environment. Knowing the place we live in and an understanding of what it means to care for that environment and sustaining the environment for future generations.

**TEACHER:** What would you say is the most significant thing you learnt this year in “Earth Spirituality”?

**STUDENT:** How fast this planet is going. I wasn’t aware, but I suppose this year actually, doing this subject, is the first. I have noticed it but haven’t taken any notice to it. This year with you teaching us this semester has opened my eyes to what is really actually happening. It was only just this morning when a girl on the bus had a “cheat sheet” for her Maths and she had used one side of the piece of paper and there was another side on another sheet of paper and she was sticking them together. I said “hey, you’re just wasting 2 sides of the paper “, and she said what does that matter? I said “it “costs” chopping down trees, you may think it’s not much, but every day...” As you showed me that in one generation we could replant trees all over our country. So, yeah, that’s what I have learnt, we are tearing down our planet and getting rid of it at a very fast rate.

**TEACHER:** How do you see yourself connected to the earth or the natural world?

**STUDENT:** My family have always gone on lots of family holidays. They are not holidays when we go into the city and do city things. They have always been a couple of days with my old man camping up the river, or whether we go to the beach somewhere. We don’t like big places, we like to be in our own little area, or environment. It’s places like that, the untouched country, that you notice the environment and I feel connected to it in a way that I can appreciate it, appreciate nature. One time I was up fishing with dad on the river, and I was putting a yabby on the hook and one of the fishing rods on the right of me had a bite. I quickly put the yabby on the ground and the next thing I turned around and a kookaburra came down, picked up my yabby and got away with it. So there’s all

different ways to appreciate nature and that's what I find and how I'm connected to it.

**TEACHER:** Was there anything particular during the course that stood out for you, that you can sort of say, well, now I feel differently about this?

**STUDENT:** In a way, through this course you've provided us with David & Muthama, you've shown us how other cultures have "Earth Spirituality", so in a way I've connected with what you have shown me, but you've also shown what these other cultures are into, so in a way, even though they do have different views to me, some of them, I'd like to appreciate their views. That is a big thing I have learnt about appreciating the spirituality of the earth.

**TEACHER:** That is a pretty common one really.

**STUDENT:** Exactly, what you have been taught, you think that's right. But when you someone else's opinion and how they preach and practice you think... oh...well, hang on, that is a pretty good point. There's no line saying no you can't... you can draw from other cultures and they both have some good things to say. I have taken some of their things in and brought it into my life too.

**TEACHER:** How would you say you have grown personally in that experience? Would you be a different person today having helped you understand Earth Spirituality?

**STUDENT:** Yes, in terms that you can appreciate it. You appreciate that every living thing is that ... a "living" thing and appreciating that you are caring for the environment. I've come to appreciate all those different things I have learnt through the year with "Earth Spirituality". I have come to appreciate it more the earth and treating it right. I always think how would it be for my future generations to come here and could come to a place that has no trees and oil is gone and all the natural resources are gone or practically died out. All there will be in a generation or two is going to be full on worrying about water, like it is in Bendigo, and we have to, and that is what it is going to be like for everything. So I don't want future generations having to deal with things like that, constantly. They won't be able to live life. Generations past that won't be able to live. But then when you refer back to the Catholic part of it "God created the earth in 7 days and nights" and this confuses me. Some days I get negative about our planet and earth, I think right it's going to die out. He (God) did it once, and He's a pretty good guy why can't he make a new one? It only took 7 days, might need a beer after it or something. You get in that kind of

mind-frame and you think surely, maybe it doesn't matter! But then you have to think, if it does we have to do what we can while we're here. And this is the time I'm living, so why not.

**TEACHER:** I'm going to ask you a more complicated question, that just takes the interview a little further, O.K. It's to do with 'Spiritual Ecological Consciousness', up until now we have been talking about the ecological crisis, which is an environmental thing, O.K. But spiritual ecological consciousness is a deeper dimension. So could you just tell me about your experience of that this year?

**STUDENT:** Not really... It's something I'm not... I'd like to know more about it but I don't know a whole heap about it. My knowledge of the spiritual part of it, the connecting of the spirit and the earth I don't sort of know where it fits in. Maybe you can help me with that one. I'm not going to make up a...

**TEACHER:** Do you see the earth as spiritual?

**STUDENT:** Oh, it has to be doesn't it? The way ... the wind... Pocahontas... 'the colour of the Wind'. The general way the wind takes you, so, yes spirits guide us, guiding you left and right through life. So, spirits... yes.

**TEACHER:** Are you glad that you have done this course?

**STUDENT:** Yes. I was actually thinking the other day, because you go away next term, I thought I'm not going to an R.E. class I signed up for. I wasn't going to learn about things that interested me. Last year going through the R.E. classes with your Christian Art, and Philosophy, and I thought yes they are interesting but I care about the earth, and I want to learn more about the spirituality side of things, so I thought this is me. So that's what I signed up for and it suited brilliantly.

**TEACHER:** O.K. then, well that's it for today so thank you very much.

**STUDENT:** Thank you very much.

## **Appendix 3:2 Sample interview with Earth Spirituality Student**

### INTERVIEW 1: JENNY

Thank you for being here with me today. I wonder if I can begin by asking you...

**TEACHER:1** What has it been like to learn about Earth Spirituality?

**STUDENT:** It has been a fantastic experience. I loved it. I like learning more about how everything is interconnected and that everything around you is....you are just so interconnected. With the earth there is a great spirit, that you just can't separate, and it's all one thing. I have really enjoyed it, having spent a whole semester learning it.

**TEACHER:2** Why did you choose to do "Earth Spirituality"? Did you have that sort of connectedness before you started? Why did you choose it?

**STUDENT:** Oh definitely, I've always felt there is a lot more to just people living on the earth than just being here, that we are all connected. So I thought it would be good to be able to spend this time just going in depth into it. It has been really good.

**TEACHER:3** As the course unfolded, what do you think has been the most significant thing that has changed the way you think about things?

**STUDENT:** There has been so much. There was learning how we came from stardust and that was very important but I think more to talk about how we are, is all interconnected. To me that is just mind-boggling that all of our spirits together, like our mother earth, I think is the most important thing I have learnt. It's hard to put into words. Definitely that and the different creation stories and the Aboriginal way and how it is all interconnected, so that relates back to our Australian, own religion.

**TEACHER:4** Now that you have learnt about "Earth Spirituality", how do you think it is going to change the way you go about things in the future.

**STUDENT:** It will change a lot, possibly my career in the future. How I act, more environmentally friendly and coming into the animals and nature, you're respecting it more and you know it is a part of you and your whole being. It definitely has impacted and will change how I am for the rest of my life, in a good way. I love it, how it has changed me this way.

**TEACHER:5** What do you understand by "Ecological Consciousness" and how do you feel about it yourself?

**STUDENT** Having an awakening in the sense of knowing everything around you. It's amazing, I feel differently, connected to everything. The ecological consciousness, I'm trying to figure out how to put it into words.

**TEACHER:6** You mentioned "awakening", could you explain that a bit further?

**STUDENT:** From coming out of this age of not really being connected with to now knowing it is such an important structure in our lives and that because we are in an environmental crisis, we need to learn how we can bring "back to life" our earth, so it will be there for us and we can live harmoniously with it and everything in it.

**TEACHER:7** It is obviously going to affect how you think and how you act. You mentioned several times about being in "ecological crisis", I just wonder what difference would it make to you if there was no ecological crisis. Would you still feel the same?

**STUDENT:** Definitely, just knowing now, that even when you're in the garden and going through the soil and digging up things, you can feel there is a connectedness and so even if there wasn't an ecological crisis I still feel really connected. I just love it and every breath of air that you take is all interconnected with you. Even if there wasn't an environmental crisis I would still be into this.

**TEACHER:8** Could we go one step further now and look what "spiritual ecological consciousness" means to you?

**STUDENT:** I think definitely it means a great deal and especially if you're learning about the different creations, that there is a spiritual nature to everything around us. Even if you're just looking at the trees outside or if you're in the jungle. You can feel it when you're out in nature not surrounded by technology you can feel the spiritual nature. It's fantastic.

**TEACHER:9** When you listened to Muthama speaking, how did you feel you were reacting about that? Did you identify with what she was saying?

**STUDENT:** Definitely, knowing that we are on the land of their ancestors. You can tell that the Ancient Aboriginal, is interconnected with the trees and plant life and the animals, all interconnected. I think that now, as Europeans, Australians, we are definitely learning there is more of a spiritual nature. It is all connected.

**TEACHER:10** What does it feel like, when you mentioned before about the garden. Do you have a special natural place where you like to be? How do you feel about that?

**STUDENT:** Anywhere in the garden. Just knowing what is around you is just growing from just in the earth. It also has like a kind of spiritual being as well as well. Just even sitting in the grass or flowers or watching the bees and butterflies go past you know it's a fantastic creation.

**TEACHER:11** One last question before we go, and it is going over what you've already said, but I just wanted to see if we can go in depth a little bit further, so, could you explain to me what it is like for you to grow in spiritual ecological consciousness?

**STUDENT:** It is definitely a fantastic feeling, especially learning it so young, that I can continue to grow with it after I finish school and everything. It makes you more aware and more connected about everything single thing you do. Like everywhere you walk and what you use. You just feel it when you're walking anywhere, definitely the spirit and how it's always going to be there and you know even years after this it's never going to go. It's definitely a good feeling to grow.

**TEACHER:12** So, you genuinely feel very happy and very contented to have gained this knowledge which has in turn impacted how you feel about yourself, in relationship to the world?

**STUDENT:** Definitely, I know my in life I have been a lot more happier with everything I have done since I know there is such an interconnectedness. Everything I do, I am more aware and it has been just fantastic.

**TEACHER: 13** OK, we have to go so thank you so much for sharing with me today.

**STUDENT:** It's been good.

### **Appendix 3:3 Sample Interview with an Earth Spirituality Student**

#### INTERVIEW 10: LIZ

Thank you for being with me today and sharing in my research. I might begin by asking you...

**TEACHER:1** How do you understand “Earth Spirituality”?

**STUDENT:** In my view it is not something that can be learned. I think that if somebody tries to teach you, you are either going to get it or you're not. Like the boys in our classroom get it. Some people have the spiritual-ness or whatever and understand what it is all about and some people don't. I think you can teach facts and figures but I don't think you can teach people compassion for this subject. How do I understand “Earth Spirituality”? I think it is how you view the earth. If you view it as the earth and humans depend on each other or if you view it that earth is only there for humans to use all the resources and that's all it's there for and how you view the balance of everything. Where you put the importance of the earth and humans whether you include all living beings including earth with the same importance, or whether you think humans are more important.

**TEACHER:2** Where you see humans as yourself in the scheme of things, has that been something you have come to realise or what. How do you think you have achieved that position?

**STUDENT:** My mother and dad are Christians and it says somewhere in the Bible you should take care of the earth, it is there for you to use, but take care of it, or something. But when I was on an Environmental camp the other year and they had a lot of spiritual things and showed how it's all connected, and we can't live without the earth, so how can we be better if we depend on it? Then I watched the T.V. program and it's all about how the even the biggest, tallest, trees need the ants and insects and everything needs each other, but they don't need humans. It asks the question... “Does the earth need humans?” Since the earth doesn't need humans, but humans need the earth, there is no way humans can be better than it, they should be equal.

**TEACHER:3** Having said that then, what would you say caused the major shift in your thinking this year? Has there been anything particular you can pinpoint and say, yes... that really resonated with me?

**STUDENT:** The change in my thinking came from when we were talking about the big picture and the cosmic stuff because it makes you think it is all so big and there is more out there than just your world. And then it also came from looking at other cultures, the way they treat the earth with so much respect and the way they understand it. Looking at all the religions and stuff and finding out that white people don't have all the answers and we don't do things right. Concerning earth, other people view it differently. Different religions it makes more sense how they view it.

**TEACHER:4** Could you tell me just something about what it has been like for you to come to this, what we are going to call "spiritual ecological consciousness"? Could you tell me what it's like to come to that?

**STUDENT:** Well, it makes me think twice about everything. Like my relationship. Can you use personal example. With my boyfriend, he is very materialistic and he likes cars and all that stuff, and it makes me think twice about going out with him and staying with him just because he doesn't care. I try to talk to him and try to get him to see my way, to see there is an ecological consciousness coming or already there, and to see things less materialistically, and to find a spirituality. It's sort of something like that that just wanting stuff than getting more money and stuff. I have come to this realisation, it's made me think twice about being with him, even though I love him very much, that's made me think twice, because I don't know which one is more important, love or doing the right thing.

**TEACHER:5** So you sort of feel in your heart now you are kind of committed to some sort of environmental awareness, the love of the earth and that kind of thing. Now this is a really big question. It is to do with, your understanding of ecological awareness, so could you tell me what you understand now by "spiritual ecological consciousness"?

**STUDENT:** Ecological awareness would just be the physical implications of everything, but the spiritual awareness would be like when we talked with this guy, it's all about the "Karma" of the stuff and will you do the right thing that brings Karma to you and he said every living thing has a spirit so if you chop a tree down you're not going to be very happy.

**TEACHER:6** How did you identify with Muthama's talk on "Indigenous" spirituality?

**STUDENT:** Well because Aboriginal people have to get their food and shelter straight from the earth, we don't have to do that anymore. They had a much better understanding that if you do something to the earth



it's going to come back and get you. But we don't have that understanding because if we do something to the earth it doesn't come and get us, it gets poor people in the earth somewhere else and we don't have to think about it.

**TEACHER:7** Last question then, to do with yourself... are you glad you did this course?

**STUDENT:** I'm very glad I did this course. It has been a very big impact on my thinking, because I start thinking about different things and start looking up different things on the internet, just the discussions we have had.

**TEACHER:8** What do you think about when you first started this interview, we talked about how this type of learning is good for some kind of people and not for others. Do you see many people thinking like yourself.

**STUDENT:** Yeah, I have a lot of friends that I know that think like me. I know a lot of people who have a "spiritual ecological consciousness" but you just can't teach it to somebody. It's just something you can't do.

**TEACHER:9** Do you have to have some sort of "spiritual awareness" of the earth before you can...

**STUDENT:** I think you have to have some sort of "spirituality" and be open-minded and compassionate. I think you have to be compassionate. I just think you have to be a very compassionate person.

**TEACHER:10** I love that word "compassionate", compassionate towards the earth. Is there last thing you would like to say that you think would help me to understand your position?

**STUDENT:** Well, it's all very good to learn about these things but it is very hard to influence your life because you have to change everything. I have changed some things but then there are others that I just can't do. But I'd like to change them in the future. I think it is good to keep in the back of your mind always and this sort of topic keep it in the back of your mind always other-wise it's a story from your heart. It's good to try to do the right thing than just not try at all. Even if you're not completely heavy about not hurting anything it's better to just try.

**TEACHER:11** Beautiful. O.K. We will leave it there!

### **Appendix 3: 4 Sample Interview with Earth Spirituality Student**

#### INTERVIEW 5: Jasmine

Thank you very much for joining for this interview today.

TEACHER: I was just wondering if you could tell me about your experience about learning “Earth Spirituality”?

STUDENT: My experience about learning about “Earth Spirituality” when I chose the subject as my R.E. elective for Year 12 it was fairly new to me. I did not know what it was going to be about. I had not even come across “Earth Spirituality” and it sounded O.K. in the little blurb I read, so I chose it and I went to the first class and had Mrs Watts for my teacher and that was basically it. I’d never heard about it before. I had heard about Aboriginal side of it like the spiritual side but never thought it was going to involve the whole course outline like that. But that is basically it.

TEACHER: As the course unfolded was there anything that you made a personal response to?

STUDENT: More so in this semester with the Aboriginal side of the course because I’ve always been interested in Aboriginal history so just to incorporate with that the “Earth Spirituality” and how they react and interact with the earth and how it means so much to the Aboriginal people in the culture, so that’s probably it.

TEACHER: What is the most significant you’ve learned for yourself?

STUDENT: Well probably the biggest thing I have learnt is how we leave the “footprints”. Do you know what I mean? By us being here we can’t really tread lightly, we haven’t really treaded lightly amongst the earth but we’ve damaged it in a way that it may not be able to recover, but it’s from now that we are able to change our ways so that it doesn’t get hurt anymore, there’s no more destruction and stuff, so that we are not hurting it as much as we did. We didn’t know because we were just starting off by chopping down the trees and we didn’t know what the effects were going to be. So we are learning.

TEACHER: So when you hear all the trees being cut down, do you feel differently now than you would of 12 months ago?

STUDENT: Yes, I do. It’s surprising, but just those little things you do read about when we research things, it hits home. You think ... “oh,

maybe we should be doing something". And you think "maybe I'm too little, I can't really do something". Well you know, people are meant to be looking after us should be doing something. The Government should be doing something. It does hit home about the facts and all the things, like there's probably not enough trees for us to live in another 1000 years or so.

TEACHER: When you talk about that it is more like "sustainability" and "survival" but I am more interested in the "spiritual" side of it. You talked about the Indigenous people. Do you think you've grown in an understanding of your own personal spirituality of the earth? Could you talk about that?

STUDENT: I believed in the Christian views mainly, and just to gain a new aspect of knowledge of another type of religion. It is all about Christianity but it is a different aspect. There is a spiritual and a connectedness to the earth. Just now, I'd walk home from the bus stop thinking nothing everything, just school and whatever and get home and do what I have to do, but now I'm actually walk home thinking "Gee isn't this nice". I feel more connected to the earth. To get pleasure you don't have to have the nicest clothes you can just be here and absorb what is around you. I feel like now I have done this I am now more a spiritual person and things don't phase me so much. I'm more calm. I feel a lot calmer, because you know that even if I don't make it to that appointment or I like I can't make it to something, it's not going to be the end all, but before it was. So it's changed my living really.

TEACHER: Has it?

STUDENT: Well, not so much that, but it does make me realise things. I haven't turned over a new leaf but it does make me realise things are different to what I thought. As a kid, I suppose it's all about maturing. As a kid you think... "If I don't have that item I'm going to die" but now, like it has been constantly raining, it keeps you down but it keeps you up, all the things happening in the earth kind of make your mood, if you know what I mean?

TEACHER: So your own personal "karma" ?

STUDENT: Yeah, so if things around you are stormy or what every you kind of feel angry a little bit but if it's a beautiful day and you're walking home you just feel on top of the world, even though it may not be, you still might have to do three hours of homework but you still might think 'what a nice day to walk home', if you know what I mean? It's hard to describe really.

TEACHER: How do you feel or value what you have learnt? Could you talk about that?

STUDENT: Well I actually do value what I have learnt. I'm probably repeating myself but the value is probably me not being so blinded, being open-eyed to the fact that there is more to life than material things. That is probably my biggest value and it is what I have learnt and I value most about the course. Going back to the Aboriginals, we took everything away from them, so imagine, would you be still happy if everything was taken away from you? Probably before I would have said "No I would be shattered", but now I think I probably could survive. So that is probably what I most value.

TEACHER: When you hear something about the environment that is damaging to it, do you feel differently about it? How do you feel about that?

STUDENT: I've got mixed emotions because, for one, my grandfather and his grandfather before that made a living from that, and it has basically made our family what it is today. We own property... do you know what I mean? It has given us basics to survive but on the other hand... that was that era, and we have changed. They knew no difference. I do have mixed emotions. Present day now I think it's probably not the best thing because you know. It's hard to describe. I was happy when they protested about it because it means that someone actually cares and so someone is caring about this forest. But then, I am doing nothing really, and I'm sitting back having no input whereas I probably should. We should care if they get cut down because we'll never have the same trees again, but then again I helped to do that, because my grandfather and his grandfather before that cut down the trees. It is strange to look back on the history but now we have done that we can now look and think by cutting down these trees we have air pollution and what not and we can see what the aftermath is. It is quite hard but it does touch you. We know we shouldn't be doing it but we still do.

TEACHER: My interest is in the topic of "Spiritual Ecological Consciousness". If you think of "ecological consciousness" or even "consciousness" and "spiritual ecological consciousness, over the year what has it come to mean to you?

STUDENT: I suppose it's to understand about what is actually going on like the recent hurricanes. Like the ice caps have melted, so that means the sea levels have risen, which means that water has risen and that's what has made the flood. So by the ice caps melting we've had to pollute. I'm conscious that by just taking a plastic bag from the

supermarket I'm contributing. Do you know what I mean? I've been woken up to the fact that... I'm now more aware of my conscious steps that I'm making.

TEACHER: Yes, that's "Ecological Consciousness" but could you go back one more step and just say again how you perceive yourself as spiritually connected to the earth?

STUDENT: Well I do because I suppose I'm aware it happened, so spiritually really worried, but at the same time I'm sitting back doing nothing.

TEACHER: Have you ever seen a particular scene of nature that has impacted on you and you've said "Oh, that's different and that says something to me"?

STUDENT: Well yeah!, every-day we take the bus to Bendigo and every day we see the same Mclvor Creek and it's just bone dry and then a few days of rain and it is absolutely chock a block, like it's full, so that was really spiritual to me, that it only took that long a few days of rain to get it really flowing. So that was really spiritual and I actually said "Oh God, why you just make it rain all the time!" So that was a really spiritual moment for me because we were in the car and I'd seen it on the way in and it wasn't that full but then on the way back home it was absolutely chock a block and mum said to me "Look at the creek". I said "Oh my God" and we both sat there and thought it is really amazing. I'm not sure if it is spiritual moment or just realising it. Sounds spiritual anyway.

TEACHER: It's all part of the earth renewing itself.

STUDENT: That is what I was thinking at the time.

TEACHER: How do you see the earth itself then as living and spiritual?

STUDENT: I definitely think there is interaction. Living and spirituality interact because without the spiritual side of things, things just don't run smoothly. We need spiritual sense so we have something to believe in and so that we can live and grow because if we didn't we would just be normal and have nothing to believe in and nothing to hope for just keep on doing the same thing. So they definitely interact but I'm probably too young to know how yet.

TEACHER: Last question then. From what you have learnt this year, do you think it is learning that will last through your life?

STUDENT: I personally think that “Earth Spirituality” has taught me things that I need to know as a person. You can’t keep living and thinking I can just pop that plate on the ground and no one will worry about it or I cannot recycle in life. But it’s things you need to know so that you can either pass them on or keep gaining knowledge about that. I think that as I grow up I will definitely keep gaining knowledge about the spirituality of the earth, my connectedness to the earth and my ecological consciousness of the earth. I think it will not be something I will put in the back of my mind I will have a conscious. Once I finish this paper I will definitely it in the recycle. So it is just something you have learnt.

TEACHER: Seeing the “big picture”?

STUDENT: Yes, definitely see the “big picture” and I definitely will try to pass it on a little.

TEACHER: So you’re glad you’ve done the course?

STUDENT: Definitely glad that I have done the course.

TEACHER: You’re glad you read the little “blurb”.

STUDENT: Yeah. It probably suited me the best anyway.

TEACHER: Well thank you very much then.

## Appendix 4: Letter to the student/participants



Australian Catholic University Limited  
ABN 15 050 192 660  
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115 Victoria Parade Fitzroy VIC 3065  
Locked Bag 4115 Fitzroy MDC VIC 3065  
Telephone 613 9953 3000  
Facsimile 613 9953 3005  
www.acu.edu.au

TITLE OF PROJECT: Discovering God in and through creation texts.  
STAFF SUPERVISORS: Dr Lyn Carter & Dr Caroline Smith  
STUDENT RESEARCHER: Mrs Margaret Watts  
COURSE: Doctor of Education

Dear Participant,

The unit of study for Text & Traditions in Term 3 2004 will focus on texts and traditions relating to the evolution of the universe, the creation of Earth, the beginnings of the human story and how God is the creator of all and our place in this amazing story. Our texts will be film, the Catechism of the Catholic Church and the Bible.

**Invitation to participate in my research.**

You are invited to participate in a research study to learn about how we grow in understanding and appreciation of the universe, the earth and all creatures on the earth as God's creation and our connection with all things created. This means sharing your learning experience in relation to God and all creation. This research is being done as part of my program as a doctoral student at the Australian Catholic University. I am asking you to participate because I believe that your reflections and ideas about how young people learn are important to my research and will benefit other teachers and students.

**What does this mean for you?**

The class will proceed as normal with no inconvenience to you and during our time in the classroom no reference will be made to the research.

There are three parts to this research:

1. You will be asked to keep a learning journal for the unit of study (all the class will be required to do this). If you agree to participate in my research then I would like your permission to photocopy your learning journal as additional information about how you are responding to the teaching and learning of this topic.

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2. At the end of the unit, after your assessment pieces have been graded, I would like to meet with you personally for about twenty minutes and ask you about your learning experience in the unit. We can meet in the classroom or the College interview room.
3. After I have thought about what you have said in the interview, I may need to speak with you again very briefly to make sure I have understood what it was you were sharing with me.

#### **There are some benefits for you.**

The benefits to you of doing this study are that you might learn some new things about the way you learn. Your interest in the unit may be heightened and you might enjoy sharing your ideas and reflections on the topic. In addition, your participation in this study will help me and other teachers better understand how to teach this unit on understanding our spiritual connections with God and all creation.

#### **Who will know about your involvement in this research?**

I will be the only person (other than your parents or guardian) who knows that you are participating in this study unless you choose to tell someone. Anytime I use the information you give me I will not use your name or identify you in any way. When I interview you I would like your permission to tape record our conversation to recall what we have talked about so I do not miss any important insights about your learning in this topic. I will be the only person who will be able to identify you on the tape and when I am not using it for my research it will be kept in a safe place. When I have finished my research I will destroy the tape.

#### **Important information for you to know about**

The most important thing is for you to remember that there are no right or wrong ideas, reflections or answers. You will be the expert and I will be the learner. All I am looking for is your opinion or ideas and if I ask you to tell me more, or explain your comments, it is because I want to be really sure I understand what you are telling me. Your first question will be something like 'Tell me about your experience of learning in this class'.

Participation in this research project is voluntary. You should also know that you can decide not to participate in this study, or stop doing it any time after you have started – this is your decision. If you do not choose to participate in the research or decide to stop doing this study at any time, your decision will not affect any outcome in your present study, future care or academic progress. It will be as if it never happened.

#### **What you can do if you are not happy about anything**

If you decide to participate in this research then confidentiality will be assured during the research and in any report or publication arising from it. Your name will not be identified with any part of the research.



If you have any questions about the project, before or after participating, please contact my research Supervisor, Dr. Lyn Carter, on telephone number 9953 3475 in the School of Education, St. Patrick's Campus at the Australian Catholic University, 115 Victoria Parade, FITZROY 3065.

After the research is completed I am very happy to provide feedback to you on the results of the project. This can be done by speaking with you or if you wish I could send you a letter explaining the outcomes of the research.

**Because you are under age and I am your teacher I have had to get a special OK**

I wish to advise you that this study has been approved by the Human Research Ethics Committee at Australian Catholic University and the Principal of Catholic College Bendigo.

Finally, if you have any complaint or concern about the way you have been treated during the study, or if you have any query my Supervisor has not been able to satisfy, you may write to the Chair of the Human Research Ethics Committee care of

Chair, HREC  
C/o Research Services  
Australian Catholic University  
Melbourne Campus  
Locked Bag 4115  
FITZROY VIC 3065

Tel: 03 9953 3157

Fax: 03 9953 3315

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

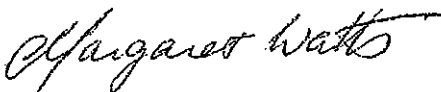
**What you need to do if you agree to help me on this project**

If you are willing to participate, please sign both copies of the Consent Form, retain one copy for your records and return the other copy to the student researcher in the stamped addressed envelope. Your support for the research project will be most appreciated.

Finally, thank you for reading this invitation to participate in my research and I look forward to receiving your reply.

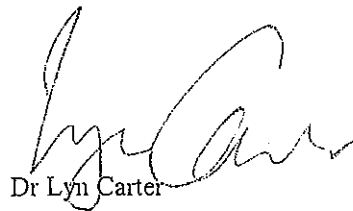
Thank you in anticipation,

Yours sincerely,



Mrs Margaret Watts

ACU Student Researcher.



Dr Lyn Carter

ACU Student Supervisor

**Appendix 5: Letter to the student/participants parents**



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**TITLE OF PROJECT:** Discovering God in and through creation texts.  
**STAFF SUPERVISORS:** Dr Lyn Carter & Dr Caroline Smith  
**STUDENT RESEARCHER:** Mrs Margaret Watts  
**COURSE:** Doctor of Education

Dear Parents/Guardians,

I am writing to ask for your support in assisting me with my Doctor of Education research program as a student at the Australian Catholic University. Improvements in education usually come about by educationists doing research into particular aspects of teaching and learning.

I have been teaching your son/daughter for Semester 1 in the Year 10 Advanced Religious Education studying Unit 1 Text and Traditions class. I have come to appreciate the willingness of this class to accept the challenge of learning at a higher level and their obvious strengths in responding to set tasks. I am delighted with their progress and I look forward to teaching them and learning from them in Semester 2.

**The background to my research**

My doctoral program requires me to conduct research in the area of teaching and learning. Next term we will be studying the scientific account of creation of the universe, the creation of Planet Earth and the evolution of life on Earth. The emphasis is on the awareness of nature as an expression of God's infinite creativity and His presence in all creation.

However, science and religion tell us that as spiritual people we have moved away from an appreciation of the Earth and its creatures to the point where Earth is now experiencing an environmental crisis. Some commentators say that our ecological crisis is really a spiritual crisis. Pope John Paul II has called us all to 'ecological conversion' as have the other major religions.

**What does this mean for your child?**

In order to address 'ecological conversion' we will be studying the Bible to reflect on a number of references that refer to how God expects us to extend 'stewardship' to the

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earth. We will be studying the scientific account of creation, Genesis stories, passages from the Book of Job, the Psalms and of course the way Jesus referred to the creatures of the earth. We will also be studying some of the documents from the Church on this topic.

My research is simply to try and appreciate how young people respond to teaching about the connectedness of all things created and God as Creator of all life. My research will help other teachers teaching in this area.

Involvement in this research is absolutely voluntary and the decision to participate or not to participate will not impact on your child's progress in this unit of study or any other teaching and learning at the College.

#### **What benefits are there for your child in this project?**

The benefit to your son/daughter will be, I imagine, a heightened awareness not only of the topic but also how they learn. It is a sound educational practice to reflect on how we acquire knowledge and make meaning out of what we learn.

#### **How will the research proceed?**

The class will proceed as normal but at the conclusion of the teaching of the unit I would like to interview your son/daughter for about twenty minutes and listen to his/her story about how he/she has responded to the topic and the teaching and learning process. I am not looking for any right or wrong way of doing things – just to share knowledge of the experience. This will be adequate for my research and hopefully it will be a good experience for your son/daughter. It may be helpful to the research to have a follow up interview at a later date.

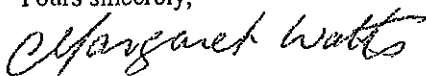
For the purposes of accurate recall the interviews will be audio-taped. Participants will also be asked for a photocopy of their learning journals as support data. For privacy and confidentiality reasons a code name will be used for the interview and identifier on the journal. All data collected for the research will be stored in a locked cabinet in the School of Education, St Patrick's Campus, ACU.

#### **How to support me in my research**

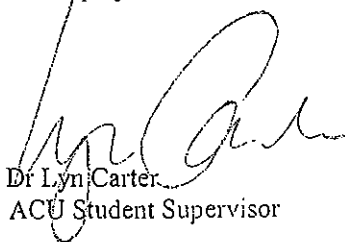
If you agree and you think your son/daughter would like to support my research by agreeing to be interviewed then please fill in the Parent Consent Form and return it with your child's Consent Form in the enclosed stamped addressed envelope.

Thank you for taking the time to read this letter by way of explanation regarding your son/daughter invitation to participate in my research/project and I look forward to your reply.

Yours sincerely,



Margaret Watts.  
ACU Student Researcher



Dr Lyn Carter.  
ACU Student Supervisor

Appendix 6: Consent Form from the Students



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[www.acu.edu.au](http://www.acu.edu.au)

**INFORMED CONSENT FORM**

**Copy to Submit to Researcher**

TITLE OF PROJECT: Appreciation of God in nature.

STAFF SUPERVISOR: Dr Lyn Carter

STUDENT RESEARCHER: Mrs Margaret Watts

COURSE: Doctor of Education

**Parent/Guardian Consent**

I ..... (the parent/guardian) have read and understood the information provided in the Information Letter to Participants. Any questions I have asked have been answered to my satisfaction. I agree that my child nominate below may participate in this activity, realising that I can withdraw my consent at any time. I agree that research data collected for the study may be published or provided to other researchers in a form that does not identify me in any way

Name of Parent/guardian: .....  
(block letters)

Signature: ..... Date: .....

Name of child: .....

**Child Assent**

I ..... (the participant aged under 18 years) understand what this research project is designed to explore. What I will be asked to do has been explained to me. I agree to take part in the project, realising that I can withdraw at any time without having to give a reason for my decision.

Name of child: .....  
(block letters)

Signature: ..... Date: .....

Staff Supervisor: Dr Lyn Carter  
Signature:   
Date: 8/9/04

Student Researcher Margaret Bannan-Watts  
Signature:   
Date: 31/8/04

CRIOCOS registered provider:  
00004G. 00112C. 00873F. 00885B

Appendix 7: Consent Form from the Parents



Australian Catholic University Limited  
ABN 15 050 192 660  
Melbourne Campus (St Patrick's)  
115 Victoria Parade Fitzroy Vic 3065  
Locked Bag 4115 Fitzroy MCD VIC  
3065  
Telephone 03 9953 3000  
Facsimile 03 9953 3005  
[www.acu.edu.au](http://www.acu.edu.au)

**INFORMED CONSENT FORM**  
**Copy for Parent/Guardian to Keep**

TITLE OF PROJECT: Appreciation of God in nature.  
STAFF SUPERVISOR: Dr Lyn Carter  
STUDENT RESEARCHER: Mrs Margaret Watts  
COURSE: Doctor of Education

**Parent/Guardian Consent**

I ..... (the parent/guardian) have read and understood the information provided in the Information Letter to Participants. Any questions I have asked have been answered to my satisfaction. I agree that my child nominate below may participate in this activity, realising that I can withdraw my consent at any time. I agree that research data collected for the study may be published or provided to other researchers in a form that does not identify me in any way

Name of Parent/guardian: .....  
(block letters)

Signature: ..... Date: .....

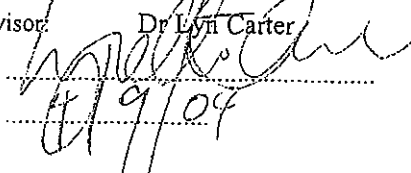
Name of child: .....

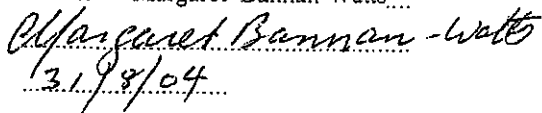
**Child Assent**

I ..... (the participant aged under 18 years) understand what this research project is designed to explore. What I will be asked to do has been explained to me. I agree to take part in the project, realising that I can withdraw at any time without having to give a reason for my decision.

Name of child: .....  
(block letters)

Signature: ..... Date: .....

Staff Supervisor: Dr Lyn Carter  
Signature:   
Date: 8/9/04

Student Researcher Margaret Bannan-Watts...  
Signature:   
Date: 3.1/8/04

CRIOCOS registered provider:  
00004G. 00112C. 00873F. 00885B

## Appendix 8: Letter to the Principal

4 Alma Crt  
KANGAROO FLAT  
VIC 3555  
3 April 2004

The Principal  
Catholic College Bendigo  
Coolock Campus  
BENDIGO 3555

Dear Mr McGregor,

I am writing to you regarding my research as a student at Australian Catholic University. As part of my doctoral program I am required to obtain permission from the ACU Human Research Ethics Committee to conduct research with minors. I am therefore applying to you for consent to conduct my research with participants from Catholic College Bendigo.

I am currently teaching a Year 10 Text & Traditions Class of twenty-one students. In Term three as part of their study we will be studying texts and traditions relating to the Universe story, the Earth story, Human story and God as Creator of all and our place in the story. We will be using film as text, the Catechism of the Catholic Church, the Bible and related documents from the teachings and traditions of the Catholic Church.

The research project investigates: **‘What is the lived experience for students participating in a teaching-learning unit which focuses on spiritual ecological consciousness?’**

Upon receipt of the ACU Ethics clearance a Consent Form will be sent to the intended participants and their parents or guardians for their agreement to take part in the research.

Only those who return their Consent Forms to be part of the research will be interviewed.

The class will proceed as normal without any reference to the research project. All students will keep a learning journal and complete a pre & post open questionnaire. At the conclusion of the study I will seek an opportunity to interview the participants and tape record the conversation. The interviews will take approximately thirty minutes and will be conducted in the classroom, interview room or in their own home if the participant prefers a familiar setting. Confidentiality will be a principle consideration.

I would be pleased if you would furnish me with a letter of approval to conduct this research with Catholic College students as participants. Your reply will be part of my application for Ethics approval to proceed with my research.

Thanking you in anticipation,

Yours sincerely,

Margaret Watts.



**CATHOLIC COLLEGE BENDIGO**  
Coolock Campus, Barkly Street, Bendigo, Vic. 3550

Telephone: (03) 5445 9100      Facsimile: (03) 5442 4206  
Email: [principal@ccb.vic.edu.au](mailto:principal@ccb.vic.edu.au)      Web: [www.ccb.vic.edu.au](http://www.ccb.vic.edu.au)

Member of the Association of  
Marist Schools Australia  
and member school of Mercy  
Secondary Schools of Victoria

**Appendix 9: Response from the Principal**

28<sup>th</sup> April 2004

Mrs Margaret Watts  
4 Alma Court  
KANGAROO FLAT 3555

Dear Margaret,

I acknowledge receipt of your letter of 3<sup>rd</sup> April 2004, regarding your research as a student at Australian Catholic University as part of your doctoral program.

I wish to advise that upon receipt of the ACU Ethics clearance, I am happy to grant you permission to conduct your research with participants from Catholic College Bendigo.

May I take this opportunity to wish you well with this exciting research.

Yours sincerely,

(Mr) Darren McGregor  
Principal

**CATHOLIC COLLEGE BENDIGO**

**Appendix 10: Letter to the Director of Catholic Education Sandhurst**

4 Alma Crt  
KANGAROO FLAT  
VIC 3555  
2 April 2004

Director of Catholic Education  
Catholic education Office  
McCrae St  
BENDIGO  
VIC 3550

Dear Mr Higgins,

I am writing to you for your approval to engage in Research as part of my doctoral program which I am undertaking at the Australian Catholic University.

My research project is:

What is the lived experience for students participating in a teaching-learning unit which focuses on Spiritual Ecological Consciousness?

The research will be conducted with participants from a class of students I am currently teaching at Catholic College Bendigo in 2004.

The research process:

1. Students will be invited to participate in the research after I have received approval from the Human Research Ethics Committee at the Australian Catholic University, Melbourne Campus.
2. The students will engage in the teaching and learning of this unit under normal conditions without any reference to the research being made in class.
3. The research method will involve conducting personal interviews of approximately thirty minutes duration at the conclusion of the unit of study. The participants will keep a learning journal and complete a pre and post open questionnaire.
4. The interviews will be tape recorded for recall purposes for writing up the thesis.
5. Only those students who have returned a Consent Form will be interviewed.
6. Confidentiality will be a principle consideration for this research.

Please confirm your approval in writing for me to do this research as I require your consent to conduct this research in a school within the Sandhurst Diocese.

Thanking you in anticipation,

Yours sincerely,

Margaret Watts





28 April 2004

Catholic Education Office  
181 McCrae Street  
BENDIGO 3550  
Ph: 03 5443 2377  
Fax: 03 5441 5168  
email: director@ceo.sand.catholic.edu.au

**Appendix 11: Consent Form from the Director of Catholic Education Bendigo.**

Ms Margaret Watts  
4 Alma Court  
KANGAROO FLAT VIC 3555

Dear Margaret,

Re: Research Proposal: What is the lived experience of students participating in a spiritual ecological consciousness class?

I am pleased to advise that, in relation to schools in the Diocese of Sandhurst, your research proposal is approved subject to the following standard conditions.

1. The decision as to whether or not research can proceed in a school rests with the Principal of that school. You will therefore need to obtain approval directly from the Principal of each school that you wish to involve.
2. You should provide each Principal with an outline of your research proposal and indicate what will be asked of the school. A copy of this letter of approval and a copy of the notification of approval from the relevant Ethics Committee should also be included.
3. No student is to participate in research study unless s/he is willing to do so and informed consent is given by a parent/guardian.
4. You should provide a list of schools which have agreed to participate in the research project to the Professional Development section of this Office.
5. Any substantive modifications to the research proposal, or additional research using the data collected, will require a further research proposal approval submission to this Office.
6. Data relating to individuals or schools is to remain confidential.
7. Since participating schools have an interest in the research findings, you should discuss with each Principal ways in which the results of the study could be made available for the benefit of the school community.
8. At the conclusion of the study a copy of the research findings should be forwarded to  
Catholic Education Office, Sandhurst  
Attn: Educational Consultant, Professional Development

I wish you well with your research study. If you have any queries concerning this matter, please contact Miss Gail Fitt of this Office.

Yours sincerely

Chris Pollard  
Senior Education Officer

**Appendix 12: Ethics Approval from Australian Catholic University**

Human Research Ethics Committee

Committee Approval Form

Principal Investigator/Supervisor: Dr Lyn Carter Melbourne Campus  
Co-Investigators: Dr Caroline Smith Melbourne Campus  
Student Researcher: Mrs Margaret Bannan-Watts Melbourne Campus

Ethics approval has been granted for the following project:  
The lived experiences of students participating in a unit of study which focuses on 'spiritual ecological consciousness'

for the period: 13/09/04 - 10/06/05

Human Research Ethics Committee (HREC) Register Number: V2004.05-1

The following standard conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* (1999) apply:

- (i) that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
  - security of records
  - compliance with approved consent procedures and documentation
  - compliance with special conditions, and
- (ii) that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
  - proposed changes to the protocol
  - unforeseen circumstances or events
  - adverse effects on participants

The HREC will conduct an audit each year of all projects deemed to be of more than minimum risk. There will also be random audits of a sample of projects considered to be of minimum risk on all campuses each year.

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

Signed:  Date: 10/09/04  
(Research Services Officer, Melbourne Campus)