RETHINKING EDUCATION:
A PARADIGM FOR EDUCATION FOR SUSTAINABILITY

by

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A thesis submitted in conformity with the requirements
for the degree of Masters of Arts
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Masters of Arts, 2011
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Abstract

In this thesis I will argue that the current predicament we find ourselves in of unsustainable practices can only be addressed through a fundamental shift in the way we view the world and ourselves in it. It is my contention that our most immediate path to achieving this shift is through education. In this thesis I investigate the philosophical basis and justification for education as the impetus for change that will lead to sustainable societies. This inquiry will rethink Freire’s work within our current socio-historical context. Limitations and critiques of Freire’s work will be examined in order to investigate the ability of his work to form the foundation of a paradigm shift towards education that promotes sustainability. The work of C.A. Bowers is used as the basis to interrogate Freire’s work and to re-think some areas to overcome limitations of Freire’s work in his application to Education for Sustainability.
ACKNOWLEDGEMENTS

This thesis would not have been possible without the love, support and encouragement of many people, to only some of whom it is possible to give particular mention here, and I would like to take this opportunity to express my gratitude and appreciation.

I must first thank my partner Marcin for all of his love and unequivocal support, his belief in me kept me was inspiring. His constant encouragement and patience allowed me to pursue and fulfill a very meaningful and personal goal. I owe my deepest gratitude to my parents who have never stopped encouraging and supporting my dreams and I am eternally grateful that they still show the same enthusiasm and interest in my accomplishments as they did throughout my childhood!

I am indebted to my thesis supervisor Professor John Portelli for his academic guidance and support throughout this process. I must thank you for your understanding, encouraging words and for helping me to believe in myself and my ideas. I also want to thank Professor Njoki Wane for working with Dr Portelli and myself and supporting my work.

I must specifically thank Margeret Parkhill for always taking the time to ask how my work was going, her willingness to discuss my ideas at length and for taking the time and care she did in revising and editing my work.

I thank all my friends and family for their support, love and encouragement throughout my work. It always meant a lot to me when friends and family asked about my Masters, how I was doing and understanding my many absences. I love all of you and look forward to spending more time together.
To Mom and Dad

My Father, the first teacher I knew, and whose words, actions, and dedication to education became part of who I am.

My Mother, for her unwavering support, understanding and the genuine excitement she possesses for all of my accomplishments, big and small.
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Rethinking Education: A Paradigm for Sustainable Education

Lynn Wilkins

Chapter 1

Section 1: Introduction, context and background

1.1 Introduction

The impetus of this thesis was born out of my ever increasing concerns for the way in which education is preparing the contemporary child for the future. Humanity’s unsustainable practices are evident in the rates of pollution, inequality, illness, poverty, and climate change, which are present around the globe. Tomorrow’s citizens will not only need to deal with the aforementioned problems, but will also need to do so with 50 percent more people on the planet (Hopkins, 2010, p. 42). They will need to provide for these people using less water, less arable land, depleting ocean resources and while simultaneously providing a ten-fold increase in energy demands (Hopkins, 2010, p. 42). “Unsustainable production and consumption patterns are creating ecological impacts that compromise the options of current and future generations and the sustainability of life on Earth” (Bonn Declaration, 2009, p. 1). In light of these realities, I began to question whether our current education system, as it stands, is capable of preparing our children to face their impending future.

My undergraduate degree in Urban Studies focused on sustainable development which is inherently multi-disciplinary and significantly formed my view of interdependence in the world. These studies opened my eyes to the grave future we face if we do not change our unsustainable ways and rethink our cultural consciousness. It is increasingly evident that we need a fundamental shift in the way in which we view ourselves in this world. I recognized early the important role education would play in this reorientation and went into teaching as a result of this realization.
Paulo Freire claims (1970/1993) that education is a vehicle whereby an individual’s world views develop; this puts education at the forefront as the most relevant context and impetus for this change. It seems clear that educational philosophy and pedagogy have a profound effect on the development of our relationship to the world and to other people. Stephan Sterling, an environmental scientist stated however; “It may be optimistic to expect education to engage with and contribute towards resolving the modern crisis when mainstream culture and values of which education is both parent and child largely make an inadequate response” (Sterling, 1996, p. 21).

Sterling’s statement of education leading thus far to an inadequate response to our global crisis is due to the fact that initiatives are embedded within a current paradigm which does not support the thinking required for a sustainable culture (1996).

My role as a classroom teacher reinforced the assertion by Sterling that I was embedded in an educational system that served only to perpetuate already established unsustainable ways. Increasingly I have become aware of the fact that our current educational system is not preparing our students to face the problems of an unsustainable world. Rather it seems to be perpetuating the thinking that has created these problems. Subsequently, it seems necessary that at this point in history, we need a fundamentally different view of how we view our relationship with the world and others. This led me to questions concerning how the education system was perpetuating unsustainable thinking and actions and subsequently, how could that be changed.

It was in the pursuit of these answers that I entered into OISE in a Master’s degree in the Philosophy of Education. This has given me the opportunity to explore questions concerning the ability of our education system to prepare children to face such a challenging future. Moreover, my experiences with the courses, and teaching, have led me to the larger question: What change is required in the way we view and practice education in order for a shift in consciousness to occur
that will facilitate a move to sustainable society’s? It also led to an ideological question; are we best served creating initiatives and programs to implement within the paradigm which currently informs education, or are we better served fundamentally reorienting education into a new paradigm?

1.2 Context

Unfortunately the socio-historical context within which students now find themselves in is one in which humans have created a separateness between ourselves, the world and the consequences of our actions (Vanderburg, 2000, p. 7). Our modern education systems were born within the context of the industrial revolution in the nineteenth century, resulting in underlying values, assumptions and ideologies that where born within a modernist context, and to date, much of the same ideology is still in place. Permeating within education are the modernist notions of ‘centred subjects’, totalizing theories, discoverable ‘Truths’, transcendental signifiers and metanarratives. These notions gave rise to the vision of a promising future for humanity, the belief that human development was headed in a progressive fashion, through a linear history towards the betterment of mankind. These inherent assumptions of modernism permeated into education and emerged in the form of pedagogy and organizational hierarchies and structure. The notion of progress and the view that ignorance was solvable and society was inevitably moving forward in a positive direction transferred into pedagogy easily. Knowledge is seen as acquired in a uniform, ‘natural progression’ through which all people could ascend.

Another influential modernist ideology was the view that nature operated by universal laws which are discoverable through investigation. We can see this embodied in Newtonian and Darwinian principles and our worlds fundamental elements neatly arranged in the Periodic Table. This ideology manifested itself within education through the development of ‘formal disciplines’,
psychological universalization in the form of ‘laws of learning’, and the assumption that children all learn logically and rationally. The result: Education has fragmented the world into manageable pieces in the form of disciplines and specialties. Subsequently, children and adults have developed a linear and disconnected way of viewing the world and themselves in it (Vanderburg, 2000, p.6). The mind has become privileged as “Western culture has been organized around the mind/body binarism and the assumption that the mind is both radically distinct from and of greater worth than body” (Orr, 2002, p. 479).

My study of literature in the field of Character Education during Dr. Jeff Stickney’s (2010) course at OISEUT opened my eyes to the reality that there are no value-free schools, programs nor teachers. The notion of objective curriculum and knowledge is false thus, whether or not teachers realize it, they are moral educators by the very nature of their position and subsequently so is education. Freire states that “…neutral education cannot exist – in whatever field.” (Freire, 1974/2007, p.128) Thus, if we operate on the premise that education is not neutral then we must come to the conclusion that our condition and relationship to the world is fundamentally embedded in societies’ approach to education. This means that the features of our social environment are reflected in our educational approach. In the same vein our educational approach is reflected in how individuals develop their sense of being in the world. The modernist ideologies which have filtered into education has led to a disconnect with the biosphere due to fragmented and mechanistic thinking. Subsequently, humans view the environment as something distinct from themselves which ultimately blinds us to our interdependence with and impact on the biosphere.

Under the increasing presence of an economic way of thinking in education, the purpose of educational systems is often thought of as development and progress. I believe the emphasis on development and progress in education is a reflection of society’s intense focus on the economy
that is inherent in a neoliberal climate. We are operating in an economic world absent of an understanding of interconnections and dependency. We see this time and time again, reflected in short sighted policies such as corporate tax cuts, economic stimulus packages and an unwillingness to commit to carbon emission reductions, due to the goal of promoting economic growth with little regard or understanding of the impact this will have on the environment, society and the economy long term.

Our modern society’s views of being in the world have separated us (society) from the interdependences between the environment, economy and society. If we accept Freire’s claim that education is not neutral then we also have to accept that the values within educational philosophy and subsequently pedagogy have a profound impact on the way a child’s relationship with the world is formed. Therefore, whatever values and understanding we have about our relationship with the world is inherently embedded within our educational philosophy and approach. Within our current neoliberal climate, the value systems filtering into education have a catastrophic impact on our relationship with the world. If the biosphere, which includes us, is to survive, it is essential that at this junction in human history, we must take a qualitatively different approach to the way we view ourselves in and with the world. Thus, it is my contention that education must move into a new paradigm as it is not enough to merely do things better, we must do and see things differently.

1.3 Rationale

It is my contention in this thesis that our most immediate and profound tool for changing our unsustainable relationship with the world in favour of a sustainable way of being, is through education. It was Freire who made me believe education can be the vessel that ignites new ways of existing. Thus, my motivation to examine his work in the context of using education as the impetus
for changing our ways of being in the world. His driving belief in the ability of humans to change their condition and existential situation through education inspired me. Thus, with Freire’s work in mind, I seek what Sterling (2010) calls for, “a changed educational paradigm” as it is not enough to just improve current models of education (p. 217). To simply improve current models of education is simply to continue to work within a system which has been destroying the planet and creating inequities since the nineteenth century (Gadotti, 2010, p. 210). There must be a fundamental paradigm shift as, “[t]he current education system is ill‐prepared to address the interdisciplinary and holistic nature of Education for Sustainable Development (ESD)” (UNESCO, 2009, p. 22).

It is time to put education on the forefront of innovation and change; “[f]ormal Education reaches hundreds of children and young people across the globe. It is no surprise that when societies face grave challenges, schools are seen as key places to develop capacities in a structured environment to help address those challenges” (UNESCO, 2009, p. 48). If the nature of our education system can be reoriented we can address: lifestyles based on economic and social justice; food security; ecological integrity; sustainable livelihoods; respect for all life forms; strong values that foster social justice and cohesion; democracy and collective action; gender equality with an emphasis on women’s rights and participation (UNESCO, 2009).

1.4 Objectives/Goal

In this thesis I will argue that the current predicament we find ourselves in of unsustainable practices and relationships can only be addressed through a fundamental shift in the way we view the world and ourselves in it. I seek to investigate, and shed light upon the shift in consciousness that is required for a new paradigm that supports a sustainable culture. The necessity and importance of a paradigm shift lies in the fact that a paradigm is a worldview, a way of knowing, and
therefore, can be altered or changed.\footnote{More on paradigms will be discussed in Chapter Two, Section 4.3} I believe that the conditions that have created unsustainability can only truly be addressed in a change towards the way we view ourselves in the world and a shift in consciousness towards a worldview that is based on relational thinking and an understanding of connectedness is needed.

In this thesis I seek to identify and investigate what appears necessary to create a shift in the way we view the world and ourselves in it that is necessary for a move to education that promotes sustainability. A philosophical basis for education to promote sustainability is needed and to provide that, I seek to rethink Freire’s work within our current socio-historical context. In order to examine Freire’s pedagogical relevance to Education for Sustainability it is necessary to problematize critiques of his philosophy in this area. The work of C.A. Bowers will be the primary basis for interrogating aspects for Freire’s work and examine Frere in this new context of Education for Sustainability. C.A Bowers’ work will also be used to move to re-think some aspects of Freire’s work that are problematic in order to re-invent his approach within the sustainability context. An additional lens of ecology from thinkers like C.A. Bowers will help to clarify and conceptualize changes to Freire’s work and our view of education that can lead to an evolution to a new paradigm which promotes true sustainability.

1.5 Methodology

This thesis inquiry will be one of broad questions and an investigation into the evolution in thinking necessary for a paradigm shift. The goal is not to provide one definitive answer that could be interpreted as a program to be implemented or a utopian endpoint. It is a philosophical investigation in the vein of inquiry in order to examine paths forward and foundations from which
to build a new paradigm of Education for Sustainability to be built upon. I seek to provide an understanding of the need for evolution and transformation while at the same time, always leaving room for context and continued evolution and the need to accept uncertainty and be comfortable with that. I do not propose an all-out abandonment of current efforts emerging within the existing system; however, those efforts are consistently stifled within a system that does not support sustainable ways of thinking. These efforts can be re-envisioned within a new paradigm of education, one that supports relational thinking and a fundamental understanding of interconnection. “Education for sustainability has to question dominant forms of knowledge and values, rediscover lost histories, knowledge and values and encourage pupils to envision and realize desirable futures.” (Sterling 1996, p. 21) Thus, I do not propose a revolutionary change, but rather an evolutionary change, one that learns from old paradigms and then reorients education towards a new way of viewing the world and ourselves in it.

Some key concepts in the rethinking of Freire’s work will involve his concepts of oppression, banking education, liberation, critical literacy/pedagogy and praxis. Critical literacy/pedagogy will play a central role with a focus on allowing teachers to work democratically with students and to allow students the opportunity to question the socially constructed environment they find themselves in. Thus, the autonomy of both teacher and student will play a central role in the evolution of education to a paradigm that promotes sustainability. To rethink Freire’s work within the context of my thesis topic and in the context of our current socio-historical context and need for sustainability, I will employ the work of C.A Bowers. I will examine Bowers view of problems within our westernized education system, his view of critical literacy and the role of culture in education. I will then move to a re-examination of Freire’s work in the current-historical context and how bringing elements of Bowers work into his work will help achieve the grounding necessary for a move to a paradigm that will support Education for Sustainability.
Section 2: Framework and Overview of Chapters

2.1 Organization of chapters

The overall theme and focus of this thesis is founded on philosophical arguments and the examination of how the paradigm within which education operates, shapes societies ability to live sustainably. It argues for the need for a fundamental shift in social consciousness in order to live sustainably and that education, within a new paradigm, can lead the way towards that.

Chapter two is focused on laying the foundation to support the need for a paradigm shift. This chapter is divided into four sections. The first section examines the major themes within the thesis, principally the notions of sustainability, Education for Sustainability, and Education for Sustainable Development. Section two is an inquiry into the current inadequacies of sustainable initiatives in education through the examination of the current socio-historical context of our time and the impact the thinking associated with this time has on our way of viewing ourselves in the world. Section three is an examination of how our socio-historical context has manifested itself into education in philosophy, pedagogy, practice and structure. This work also discusses the impact this context has on educators themselves. In the fourth section, the work is pulled together to focus on the need for a paradigm shift in order to achieve the shift in consciousness necessary for a sustainable society. It also includes the rationale behind choosing Freire and C.A.Bowers as the basis for developing a philosophical justification for a paradigm shift.

Chapter three presents my argument for the necessity and importance of education in the context of Freire, as the root source for a shift in consciousness. Section one highlights Freire’s work and the relevance of evolving his notions into an understanding and analysis of our current-socio-historical context. Section two examines some of the perceived limitations of Freire’s work in the current context through analysis of critiques from Bowers. These critiques are then
problematized and followed by looking at Bowers own philosophy. Bowers work is highlighted to present philosophical points that can be utilized to help re-think Freire’s work. Section three presents how through the utilization of Bowers work as a source to re-think Freire in the current socio-historical context gives a philosophical justification and grounding for Education for Sustainability and the need for a new paradigm.

Chapter four summarizes key points and presents’ final thoughts and discussions on the implications of a new paradigm in education. Some visions and suggestions for change in education are also presented and discussed.
Chapter 2

This chapter presents an examination of the major concepts and themes within this thesis. I seek firstly to clarify the concept of Sustainability and then to place it in the context of education by looking at Education for Sustainability (hereafter referred to as EfS) and in the same vein, Education for Sustainable Development (hereafter referred to as ESD). My goal in this chapter is also to describe the socio-historical predicament in which individuals find themselves at this specific historical time. Further to that I seek to explore the implications of this historical time founded in a kaleidoscope of modern and postmodern views as well as neoliberal ideologies and the subsequent impacts this has had in education. I have divided this chapter into four sections. The first section will provide a definition for sustainability, EfS/ESD. The second section examines the current socio-historical context of our time by investigating the Western Mindset and the underlying ideologies, beliefs and practices that have resulted. The third section examines what I have called the Economy of Education paradigm. Lastly, section four will examine the notion of paradigm and the implications of a paradigm shift to an Ecology of Education paradigm.

Section 1: Education and the search for Sustainability

1.1 Examining the concept of sustainability.

The concept of sustainability is broad in its scope, encompassing all realms of human interaction in the world; social/cultural, environmental and economic. The most widely accepted definition comes from the Brundtland Report, *Our Common Future (1987)*: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. The Brundtland Report emerged in 1987 after a commission
in the same year where unequal development was identified as the root cause of environmental problems. From this came the Earth Summit in 1992 in Rio de Janeiro through which the UN Conference on Environment and Development (UNCED) brought forth Agenda 21 in an effort to push for sustainable goals. In this report, education was highlighted as a key in achieving a sustainable world. Over the last three decades, the concept of environmental education and more recently sustainability education has become increasingly important.

Since these major markers, along with others such as; the World Conference on Human Rights (Vienna 1993), the International Conference on Population and Development (Cairo 1994), the World Summit for Social Development (Copenhagen 1995), the Bonn Declaration (Bonn 2009), the discourse on the need to change education for environmental and social justice reasons has increased. The discourse includes such fields as; Environmental Education (EE), Development Education (DE), Social Justice Education (SJE), Education for Sustainability (EfS), and Education for Sustainable Development (ESD). Although I prefer the term/concept of Education for Sustainability over ESD, I will use both interchangeably as ESD is most prominently used in literature and UN documents.² Most recently the UN has endorsed the concept of ESD as imperative in the drive to become a sustainable world. In the next section, this concept will be explored.

1.2 Education for Sustainability (EfS)/Education for Sustainable Development (ESD)

In 1992 the formal concept of ESD emerged internationally in the publication of Chapter 36 in Agenda 21 (Wright & Pullen, 2007, p. 78). Since then there have been multiple conferences internationally as well as new journals and an increased number of articles published focusing on

² My preference for Education for Sustainability over Education for Sustainable Development stems from my belief that the latter continues to put the focus on development and as such, development could remain open to interpretations that see development as continued market expansion and consumerism.
ESD (Wright & Pullen, 2007, p. 81). The most readily available body of literature on ESD is presented by UNESCO and most comprehensively written after December 2002 when the United Nations General Assembly adopted resolution 57/254 to put in place the United Nations Decade of Education for Sustainable Development (Higget, 2009, p. 1). UNESCO was designated the lead division of the initiative which was proposed would lead to opportunities to rethink how we approach global challenges. The vision of the UN Decade for ESD is of a world in which everyone has the opportunity to benefit from education and learn the values, behaviours and lifestyles required for a sustainable future and for positive societal transformation (UNESCO, 2009).

UNESCO offers the following definition and understanding for ESD:

ESD is an approach to teaching and learning based on the ideals and principles that underlie sustainability – human rights, poverty reduction, sustainable livelihoods, peace, environmental protection, democracy, health, biological and landscape diversity, climate change, gender equality, and protection of indigenous cultures (UNESCO, 2005, p. 28).

There is often confusion about what exactly ESD is and is often thought to lack a definitive notion which has been a barrier to implementation (UNESCO, 2009). “Limited awareness and understanding of ESD at all levels are still a fundamental challenge resulting in a limited societal and governmental support-base for ESD” (UNESCO, 2009, p. 64). There is a need to understand ESD as more than just the environment in order for it to be truly successful. ESD encompasses social, economic and environmental factors and looks at the interconnections between them; it encompasses humans and our interactions as a whole in society, the economy and with the environment. UNESCO goes further to define the role of ESD:

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3 Some new journals include: *Journal of Education for Sustainable Development; International Journal of Sustainability in Higher Education; Applied Environmental Education and Communication.*
The role of education for sustainable development (ESD) is to help people develop the attitudes, skills, and knowledge to make informed decisions for the benefit of themselves and others, now and for the future, and to act upon those decisions (UNESCO, 2005).

Despite the increased presence of ESD in literature and initiatives by organizations like the UN, ESD is still lacking any significant public awareness. Part of that may be because the concept of ESD is highly complex and requires a more definitive understanding and explanation that can be communicated to the public (Wright & Pullen, 2007, p. 81). “[t]he absence of an agreed definition for ESD, confusion about understanding the difference between environmental education and ESD...” provide challenges for the implementation of ESD in education (UNESCO, 2009, p. 22). I will argue that the lack of success of ESD and other movements such as EE, is not due to the lack of a clear definition, but is the result of a far larger problem that mainstream discourse is largely overlooking. The larger problem lies within the current paradigm in which education is embedded, a paradigm that promotes a mindset with a disconnected view of ourselves, and the biosphere.

Section 2: Socio-Historical Context

2.1 Western Mindset.

The current dominant paradigm of education is heavily influenced by modernism, becoming increasingly impacted by postmodernism and significantly embedded with neo-liberalism. The influence on thought and philosophy that occurred during the 16th to 18th century cannot be overstated. The industrial revolution combined with the scientific revolution marks a major moment in the creation of our modern consciousness. The industrial revolution shaped our view of labour and capital and pushed us towards the concepts of (Clark, 1989, p. 275):
• the natural right to ownership (Locke)
• the notion of economic self-interest and the benefit to society (Adam Smith)
• the inherent competitiveness in human nature (Hobbes)
• the tendency to march towards progress (Darwin)

Further to that, Francis Bacon leads to the view of empirical knowledge based on observation in laboratory and the thinking and belief we could discover ‘truths’ (Clark, 1989, p. 275). Isaac Newton gave us the mechanical universe and Rene Descartes the mind body dualism and the superiority of rationalism.

The above views have resulted in our current worldview which is resting on what is essentially an epistemological error; that is a way of ‘being’ and an existence that is based out of a dissociated mindset (Sterling, 2010 p. 214). That is, we live in a world with a perception of separateness, we view the world from a dissociated mindset and we lack an understanding of the connections and context of which we are a part. The underlying ideologies and beliefs of our time have produced a mind-set in which there exists a “…human/nature dichotomy, its emphasis on competitive individualism and technology/economic practices and its experimental approach to ideas and values, is clearly not ecologically sustainable over time (Bowers, 1987, p. 164).

2.2 The Postmodern Condition

The modernist dream of discoverable ‘truths’, grand narratives and control began to crumble with two World Wars, the Holocaust, the Atomic Bomb and the degradation of the environment. It became difficult to hold onto the notion of humanities continual progress to a better life in the face of such devastating events. From that, the Postmodern era was born where
those such as Lyotard declared; “Let us wage war on totality” (Lyotard, 1984, p. 82). The result, the abandonment of the centre, privileged reference points and fixed origins. We moved into a postmodern condition grounded in critique, uncertainty, indeterminacy, difference, aesthetic individualism and dissociated individualism. Unfortunately, or fortunately, this brought an inevitable unstable source of meaning which lead to a sort of delusion as the foundational beliefs of modernism, from which meaning was derived began to breakdown. Nietzsche describes this break in his passage from Gay Science, *The Madman*:

‘Where has God gone?’...*We have killed him* – you and I. But how have we done this? How were we able to drink up the sea? Who gave us the sponge to wipe away the entire horizon? What did we do when we unchained this earth from its sun? Whither is it moving no? Whiter are we moving now? Away from all suns? Are we not perpetually falling?...Are we not straying into infinite nothing? (Nietzsche, GS, p.125)

Education is also transitioning into a postmodern condition, although modernism remains very much alive and dominant in education. Postmodernism has been valuable in questioning assumptions of modernism and has broken the ground to pave a way for an evolution to a new way of thinking that supports sustainability. Despite the benefits of this break, there seems to have been a price from the deconstruction of our past views, it has left us with no ‘truth’ and with the emphasis on deconstruction in postmodernism, no hope of a new one. This has opened the door to the search for new gods, new meanings, and led the way for individualism, which ultimately has supported the growth in consumerism and ultimately neoliberalism. Despite these problems, I do believe that Postmodernism can evolve further to build, or in other words, help construct new views
that will lead us to a new consciousness that supports sustainable societies.4

2.3 Education and the Neoliberal Context

Neoliberalism has emerged as the dominant ideology driving our current socio-historical context. Neoliberalism brings in its wake a market-driven approach to policy whereby the principles of private enterprise are touted as the most effective way to gain success. “Neoliberalism is an economic, moral and social system designed to advance 20th century capitalism” (Huckle & Sterling, 1996, p.6) In this view, efficiency becomes the all-consuming goal and the path there is through maximizing inputs, creating a culture of accountability and achieving outcome goals for greater profits and success. Thus, our modern society’s value system is becoming increasingly founded in business style thinking and we find ourselves in what Janice Stein (2001) calls the ‘cult of efficiency’. We justify our patterns of growth and development through economic terms dominated by input-output methods and performance values (Vanderburg, 2000, p. 19). Subsequently, our understanding of the value of things is rooted in numbers, figures and statistics. “Everything must be operational or disappear” (Vannoberger & Smeyers, 2007, p. 47) Furthermore, in this business and rationalist mindset we assume that streamlining practices and being accountable through measurement will increase values through greater efficiency. The belief is that measuring the resulting output will cause organizations have greater success and prosperity.

Neoliberalism is hegemonic, which means it is a “...system of power exercised through ideology that completely dominates social consciousness by instilling a single set of values and

4 I use the term evolve specifically to signify a belief that our paradigms are not clear cut, we cannot say we jumped completely from modernism into postmodernism. It is a transition, an evolution of change from one view to another differing view of the world. There are still echoes of modernism as we move into a postmodern era and there will be echoes of both as we continue to evolve towards new views of the world.
ideas” (Sterling, 1997, p. 6) The values and ideals being instilled with neoliberalism are those of a
U.S economic model which allows owners of capital to operate unobstructed around the world to
take advantage of the poor around the world with non-existent environmental regulation” (Hyslop-
Margison, & Dale, 2010, p. 6). Carlos Torres (2008) states that neoliberalism has also become embedded in our educational culture. Education is now structured in such a way that results in schools viewed as businesses that need to be efficient and accountable to parents and students who are the clients. “A neoliberal version of globalization is reflected in the educational agenda that privileges if not directly imposes, particular policies for evaluation, financing, assessment, standards, teachers’ training, curriculum, instruction and testing” (Torres, 2008, p. 56). Thus, we see the imposition of business sector frameworks and ideologies becoming the foundation of educational decisions and policies. This is the economic, political and social context within which schools are currently situated.

2.4 Education, the Western Mindset, and Neoliberalism

Schools are increasingly “...viewed as production facilities whose primary mission was providing industry with its required human capital (Hyslop-Margison & Emery, 2006, p. 2) Free-market tools have begun to find their way into education through the neoliberal faith in competition and accountability to correct all possible social and economic ills (Hyslop-Margison & Emery, 2006, p. 12). “Neoliberalism demanded that schools and teachers be held directly responsible for student academic fortunes through the onslaught of standardized testing” (Hyslop-Margison & Emery, 2006, p. 12). Accountability has increasingly become the tool to move educators towards policy makers ends, and standardization of policies, curriculum and testing has emerged as the measuring stick for our schools, students and teachers. As a result, in our current
context, one can no longer think of education without thinking of it in terms of measurement and ranking and trying to improve test scores. Subsequently, education and in turn learning and teaching, are becoming narrowly constricted as they are being increasingly based on a structure and purpose founded upon goals of achievement on standardized tests.

The increase in standardization is known as the standards movement within which accountability is highly stressed (Pratte, 2001, p. 35). Biesta (2004) highlights Bruce Charlton’s analysis of accountability as a “slippery rhetorical term” with two distinct meanings (p. 234). The first meaning is a more general meaning; it is to do with responsibility and has the connotation of being answerable to (Biesta, 2004, p. 234). The second is a more technical meaning and refers narrowly to auditable accounts and thus related to financial documents (Biesta, 2004, p. 234). The link between these two meanings is weak and can only be argued if one assumes and takes documentation as synonymous with responsible behaviour, yet, the current rhetoric of accountability does link the two, thus, “making it difficult to see an argument against accountability as anything other than a plea for irresponsible action” (Biesta, 2004, p. 235). Thus, within the standards movement of our context, accountability as a technical meaning has become entwined with responsibility.

Despite the association between accountability and responsibility in the standards movement, Richard Pratte (2001) states that accountability and responsibility differ in fundamental ways. If accountability means subject to the obligation to report, explain, justify, as documentation and measurements, then the behaviour to those accountable is pre-specified and it does not make sense to claim that they are responsible for their behaviour (Pratte, 2001, p. 39). If we view responsibility as being responsible to something and someone and to both have the capacity for moral decisions and to be capable to act on one’s own initiative and authority, then the more
accountable you are, the more difficult it is to be responsible (Pratte, 2001, p. 39-40). Pratte contends:

A responsible person considers her intentions, the nature of the act, and its consequences, and this conduct is precisely what we wish for in teachers. On the other hand, accountability marks a distinct contrast. To be \textit{accountable}, one is answerable in some degree or fashion for what one does. To meet this controlling liability one need merely follow the appropriate or correct procedures required (Pratte, 2001, p. 40).

Subsequently, accountability ensures complying pre-specified behaviour rather than the capacity for moral decisions that responsibility promotes (Pratte, 2001, p. 40). It is also clear that the current understanding of accountability is not one of professional and democratic notions but rather a hegemonic one based on technical-managerial views (Biesta, 2004, p. 236). In the current top-down structure, education and schools are accountable to regulating bodies, not directly to students and parents (Biesta, 2004, p. 240). Thus, the current state of accountability elicits behaviour that “suits inspectors and those responsible for quality assurance – rather than to encourage professional and responsible action” (Biesta, 2004, p.240). The current concept of “[a]ccountability is an apolitical and antidemocratic strategy that redefines all significant relationships in economic terms and hence conceives of them as formal rather than substantial relationships” (Biesta, 2004, p. 241).

Within this standards movement, accountability has become central and confidence in educational quality is becoming increasingly advertised through test scores. It is clear that the purpose of using data from standardized tests is to give an air of accountability to policy and focus on the achievement of predetermined ends set by the governing bodies. The data is then used as a tool by policy makers to create, meet and further their aims and or ends that they have set out. Unfortunately, this obsession with finding and creating effective means to ends “has diverted our attention from implicit ends themselves” (Vannobergen & Smeyers, 2007, p. 47). Education as such
can be framed in what is called ‘means-end’ reasoning, where the “aims and objectives have been formulated for an individual or a group of people thus, in both cases, delaminating the educational relationship in order to realize what has been projected” (Vannobergen & Smeyers, 2007, p. 46). For Freire education, among other things, is a human act of intervening in the world, and provides opportunities for the production and construction of knowledge (Freire, 1998, p. 30). When outcomes are projected, educating becomes about transferring pre-determined “knowledge” to achieve the objectives which denies students the ability to dream differently and serves to perpetuate dominant ideologies.

We have become so all consumed with the achievement of desired goals that we have forgotten why it is we are trying to achieve them in the first place. We are “pursuing answers without any sense of the original questions, proliferating devices for achieving ever greater efficiency.” (Vannobergen & Smeyers, 2007, p. 46) In this drive for accountability, we seem to have forgotten for what and to whom it is we are trying to be accountable for/to. It seems that we are accountable to policy makers and those who have outlined the content and direction of education rather than those to whom we are educating and society as a whole. We have lost sight of the most fundamental question of all; what is the purpose of education? In the current context it seems we educate in order to produce individuals who will adapt into the market place as good workers rather than a critically thinking citizenry. “An education system designed to respond to the needs of the market place predictably appears radically different from one focused on preparing students for the responsibilities of democratic citizenship” (Hyslop-Margison & Emery, 2006, p. 14).
Section 3: Economy of Education

3.1 The Economy of Education Paradigm

Our society’s focus on development and progress, with the economy as the driving force has resulted in our educational systems operating within an economic value system which is inherently unsustainable. This neoliberal value system, within the Western mindset, supports divisive thinking and binaries such as: analytic/synthetic, qualitative/quantitative, objective/subjective, this is a paradigm that I have called the Economy of Education. It is important to note that the use of the term economy in the context of this thesis is based on a Western-mindset that is rooted in capitalist and neoliberal ideologies. It is an economic view that is based upon a market-driven approach that holds that the private sector is the best means by which to organize our social, political and economic policies. This approach values highly, competition, individualism, privatization and consumerism.

The Economy of Education paradigm is a reflection of the larger neoliberal economic system and is rooted in a Western mindset of dualisms, mechanistic thinking, individualism, and rational lenses, which has manifested itself in education. This Economy paradigm operates in a very linear way and the focus here is largely on inputs and outputs and subsequently an emphasis on performance values (Vanderburg, 2000, p. 6). As a result, the contexts of human life, societal, cultural and human values and the interconnections between all our actions on earth are stripped away (Vanderburg, 2000, p.). Within a neoliberal environment, this Economy paradigm carries with it an assumed authority as it is rooted in rationalism, mechanistic and quantitative measures and empirical data. The assumed authority is derived from the ‘myth’ of objectivity which is rooted in the belief that rational scientific data collection is void of any bias and thus gives us a valid and ‘objective’ picture of what is ‘really’ the case.
With the Economy of Education driving educational operations, we have a continual path of unsustainable education and subsequently unsustainable human connections and interactions in and with the world. We can see the values of the Economy reflected in the standards movement in education as there is an increasing presence of accountability manifested standardized curriculum, tests, and teaching practices and even in the reference of students and parents as customers. As mentioned previously, measureable accountability has become the driving force behind educational policy and practice. In the same vein, subject specialization, isolation of subjects and specialized “boutique” schools continue to narrow the scope of education.

With the emphasis on the Economy of Education our understanding of the health and success of education has come down to measurements in order to situate our students, teachers and schools within specified parameters of success. We are gauging the success of education in terms of achieving the highest level of desirable outputs from inputs as measured in performance values (Vanderburg, 2000, p. 16). The success criterion that is then used to gage education is that which is outlined from the top-down by policy makers and ‘experts’. ‘Success’ then for the student is achieving high marks on tests, ‘success’ for the teacher is having her students rank highly on the tests, and the ‘success’ for schools is ranking highly amongst other schools and maintaining or improving scores. However, there is an inherent danger in placing our faith in numbers as illustrated in the following example. Our generally accepted progress indicator, the Gross Domestic Product (GDP) measures the value of goods and services produced by inputs. (Vanderburg, 2000, p. 16) The more we produce and spend raises the GDP which indicates a healthy economy and in correlation a healthy country, however, this indicator fails to take into account undesirable consequences.

William Vanderburg asks us to
Consider a typical suburban family with two children. The family car is destroyed in an accident, fortunately with only minor personal injuries. When a new car is purchased and the family receives some medical services the GDP increases. Apparently, accidents boost economic output (Vanderburg, 2000, p. 32).

Another salient example is when industries produce goods they are permitted “externalized costs,” this means they are not responsible for the ‘side-effects’ of doing business such as deforestation or water pollution (Leonard, 2010, p.xxiv). In fact when pollution occurs, for example an oil spill, the clean-up costs associated through highering companies to take care of the mess actually causes the GDP to rise as money exchanges hands. There is no deduction in the GDP for the destruction or pollution of resources and the biosphere, nor is there an accounting for the inequalities produced as ‘external costs’ of ‘doing business’ (Leonard, 2010, p. xxiv). The problem with the GDP is that it is based on the fact that the economic model values growth in and of itself and subsequently does not factor in ecological or social costs (Leonard, 2010, p. xxiv).

These types of examples highlight the problem of basing decisions purely on numbers and data. When we reduce our understanding of what is happening and valuable in education down to numbers, devoid of context and values, we fail to see the whole picture. Furthermore, we effectively remove the ability of the teacher to act within their context and for individual students. The Economy of Education and the inherent emphasis on an input-output system defined by performance values, is becoming what Gert Biesta (2007) calls a dangerous path as it results in evidence-based practice. The government becomes the authority of content and methodology in which the basis and quality of education becomes a formula based on performance values obtained through standardized tests. That means much in the way we use GDP measurement to gage economic success, we are using test scores to gage educational success and similarly to GDP, we are not accounting for undesirable consequences.
3.2 The Impact on the Teacher and Students

The impact of the Economy of Education paradigm is palpable in its impact on not only standardized content and assessment but also further into methodology. Once performance values are analyzed in relation to inputs and pre-determined ends, correlations begin to emerge from “experts” about “what works” in regards to teaching practices that maximize student results. (Biesta, 2007, p. 3) “What works” is then boiled down to what teachers are told are the “Best Practices” that they should be using within the classroom in order to maximize performance. Subsequently, teachers begin to feel increasing pressure to only teach within the boundaries laid out within what counts as “Best Practices”. Moreover, teachers start to feel the pressure to maximize outcomes. In attempting to maximize their students’ performance values on standardized tests, teachers start to “teach to the test”.

The presence of the Economy of Education has become so intense that teachers are now informed in detail about what particular goals should be set for and achieved by particular students. On many occasions I have sat with my principal to “unpack” the data derived from standardized assessment, and have had to defend my students because based on data they were labelled “at risk”. “At risk” as defined by the school boards, is a student in danger of not meeting Educational Standards of achievement set by government bodies. Recently, I was told to deliver nine of my students’ packages for summer school despite my judgement that this was either not needed or would not benefit some of the students. I was not consulted as to my professional judgment, nor asked why they might have struggled in an area, nor whether they had improved. My ability as a teacher, the person who works and interacts with the students daily had no authority to impact the decisions in this situation.
Freire (1998) asserts that it is my duty as a teacher “to respect the dignity, autonomy, and identity of the students...” and that I must develop teaching practices that respect this (Freire, 1998, p. 62). This responsibility of the teacher is considerable and requires constant critical evaluation of one’s practice in order to respect one’s students, this Freire states, is both a duty and an ethical responsibility (Freire, 1998, p. 65). In order to respect one’s students the teacher must take “into consideration the conditions in which they are living and the importance of the knowledge derived from life experience, which they bring with them to school” (Freire, 1998, p. 62). This ethical responsibility of the teacher however, cannot occur under conditions that do not create the space necessary for this relationship to occur. If I am not allowed to advise or make decisions in the best interests of my students, such as recommendations about summer school, I cannot fulfil my duty to my students. My responsibility is then to the governing body that requires of me the delivery of summer school packages to students as determined by data interpreted by a computer program.

In the environment of the standards movement and neoliberalism, the emphasis on achieving pre-determined ends moves the teacher’s responsibility away from the students to the bureaucratic structures. The responsibility of the teacher becomes accountability to bureaucratic structures and the achievement of pre-determined ends. Thus, any judgement the teacher should make in order to respect the dignity, autonomy and identity of the student is limited if not completely extinguished in order to meet the requirements of the structures in place. The supporters of the standards movement and “[e]vidence-Based Education state, for example, that education is too important to allow it to be determined by unfounded opinion...”(Biesta, 2007, p. 4). That unfounded opinion to which the quote is referring, is the opinion of the teacher who has a relationship with the students and the professional training in the field of education. It would seem that there is mistrust in the knowledge embedded in the experiences of the teacher, as it is often viewed as not empirically sound and thus not valuable.
Gert Biesta points out that there is progress being made within the camp of evidence-based proponents as there is “a more nuanced way about” linking research to practice and policy.(Biesta, 2007, p. 5) However, simply softening words to “informed practice” or “data driven” and even “Best Practices” equates to nothing more than the alteration of catch phrases to appease opponents. The reality remains that there is a top-down control of daily life in the classroom and the subsequent erosion of the teacher’s authority and autonomy in the classroom. I am not arguing that empirical evidence should not be considered. There is a valuable place for studies that help teachers to adapt to new and challenging situations and improve pedagogical approaches. However, when you remove the realm of context and relationships, and focus solely on pre-determined performance outputs, you are effectively negating any professional judgement of the teacher and autonomy of students.

When we focus on the Economy of Education we focus on growth seen as higher scores on tests rather than net (real) impacts of initiatives and practices that can include negative impacts. This notion of empirically founded “Best Practices” inherently hinders any opportunity for teachers to make “judgements in ways that are sensitive to and relevant for their own contextualized settings” (Biesta, 2007, p. 5). When teachers lose that ability to use their professional knowledge from experience and the context within which they operate, they are being reduced to an almost Fordian model of teaching (Vanderburg, 2000, p. 37). Teachers essentially act as assembly line workers who have had the components of their job broken down into prescribed content and practices that management has determined is the ‘one best way’ (Vanderburg, 2000, p. 37). In this model, students are the parts to be assembled in a prescribed way in order to maximize performance and reach predetermined ends.
The industrial assembly line system was highly successful in terms of production, labour costs and time and ultimately became the foundational system for manufacturing. However, studies have also shown that “this form of work is incompatible with healthy workers” (Vanderburg, 2000, p. 37). The results are a less creative workforce, a deterioration of job satisfaction, degradation of relationships with management, high levels of stress, fatigue and health problems (Vanderburg, 2000, p. 37). The issues are highly correlated to a loss in autonomy and decision making ability within the line workers. These negative outcomes however, are not measured and the real cost of the assembly line practice is not evident. The same may be said for performance indicators in education, as no one is accounting for or measuring undesirable outcomes of government initiatives for neither students, teachers, nor society.

This does not mean that undesired situations are not going unnoticed, it is just that they are not being correlated with the initiatives being imposed in education and thus are seen as a separate problem. Since the root of the problem is not factored in, many attempts to deal with the negative impact of initiatives are dealt with in a band-aide or end-of-pipe type approach (Vanderburg, 2000, p. 32). In other words a problem is created and then once realized, attempts to fix the damage occur but the initial cause is never addressed. The stripping of context from content and methodology, the increased focus on assessment, the resulting focus on core subjects, sheet work and subsequent stress on teachers and students have led to problems which are being dealt with in this way. These approaches can be seen in government endorsed initiatives within the system such as Character Development programs and “Boutique” schools, both created in response to concerns students were not meeting standards nor developing attributes consistent with an “admirable” person.5

5 Boutique schools are schools that specialize in a particular area or focus on a particular group. Focuses include things such as science, sports, the arts or sex.
Once a teacher lacks the authority to make decisions for individual students and the freedom to adapt to students; the quality of the relationship between teacher and student is reduced, as they can no longer focus solely on the students own context. Freire states that “this constitutes an offense towards both educators and learners and to the art of teaching itself” (Freire, 1998, p. 64). Essentially initiatives such as “Best Practices”, which are thrust upon teachers as the only way to teach or the ‘right’ way to teach result in a loss of their pedagogical approach and replace it with mere instructional approaches. A pedagogical approach to teaching that is based on the respect of student’s dignity, autonomy, identity and context requires the freedom to work with the students in front of you (Freire, 1998, p. 13). When teachers are imposed upon from the top, told what are the best ways to teach in order for students to best acquire the prescribed knowledge, then teaching turns to prescribed delivery and technique rather than adaptive to students. Instructional strategies are disseminated as the “best ways” to transfer knowledge and the freedom required for a student oriented pedagogical approach is lost. Within this environment there is no room for relationships, context or relational thinking and methodology and it is within this environment that EfS/ESD is trying to make headway.

A new paradigm necessary for education to promote sustainability will require of us the ability to think and act relationally. It will require the ability to use the life experiences of the students in the classroom as well as the ability to examine local and cultural knowledge’s and practices that contribute to sustainable practices. This paradigm must be flexible and adaptive in order to change with new challenges, be adaptable to different regions and cultures and to allow for the construction of new ways of viewing the world. Within an environment that hinders the freedom of both teachers and students to act and think critically and creatively due to top-down impositions, education that promotes true sustainability cannot be achieved.
3.3 Moving Forward

When I began asking myself how we have found ourselves three decades after the Brundtland Report and surrounded by multiple fields of initiatives being pushed into education from influential groups, why is it we are still finding ourselves in a highly unsustainable world? Through my investigation which has been detailed thus far, it became apparent that despite how good any Education for Sustainability and ESD initiative is, education as a whole is shaped by predominant values and beliefs in society. Values and beliefs that are founded in ideologies of Modernism, deconstructionist postmodernism and neoliberalism.

Sterling asserts that “education for sustainability is in danger of debilitation through being appended to existing theory and practice without sufficient consideration of how it requires an additional or changed response” (Huckle & Sterling, 1997, p. 22). This debilitation occurs due to the fact that ESD and other parallel initiatives have been implemented within a dominant paradigm that does not support the thinking necessary to create the form of consciousness needed for sustainable thinking. More superficially, these initiatives are more in line with behaviour change, but “…sustainable development, if it is going to happen, is going to be a learning process – it certainly won’t be about ‘rolling out’ a set of pre-determined behaviours” (Vare & Scott, 2007, p. 192).

Unfortunately, the modern form of Education is engulfed in a dominant paradigm, as described in Section 3.2, that is virtually incompatible with the ways of thinking that are necessary to achieve sustainable societies. “…[N]eoliberal ideology, with its de-historicizing and de-politicizing impact on education policy, seriously erodes the opportunity for students to entertain alternative social visions” (Hyslop-Margison & Sears, 2006 p. 25). That is, visions that emphasize sustainability issues such as social justices, economic equality, environmental protection and holistic visions.
Section 4: Paradigm Shift

4.1 Paradigm

The problem thus far with implementation efforts of EfS/ESD is that EfS/ESD and other like initiatives have been attempted to be operationalized both in the Economy of Education paradigm and thus, very much akin to this paradigms structure. Paul Vare and William Scott argue that initiatives in ESD that have been implemented are very much “expert-knowledge-driven” (Vare & Scott, 2007, p. 193). This approach “involves raising awareness of the necessity for change and ‘signposting’ goods and services that will reduce the ecological footprint of our activities” (Vare & Scott, 2007, p. 193). This approach is very much focused on mere behaviour changes as informed by experts and is still dominated by the idea of measurement with concepts such as the ecological footprint and now also the handprint dominating discourse.

Current initiatives are outweighed by the larger values in which education sits, it doesn’t mean initiatives are completely ineffective, but they are limited by being embedded in the dominant paradigm. Greening school yards, and buildings, implementation of units and programs, courses and activities are all necessary and should not be discarded from new efforts. The fact remains however, they are having little overall impact on our society’s move, or lack thereof, towards sustainability (Sterling, 2010, p. 215). These efforts remain unquestioning of the larger whole, the paradigm that shapes cultural thought and education itself. “If we are going to go beyond these ‘weak’ forms, it is necessary to review and build on existing transformative practices in education,” (Huckle & Sterling, 1997, p. 28), which is this thesis’ focus.

It is certain that initiatives operating within the dominant paradigm are doomed to be marginalized as too little attention is given to the nature of education and consciousness. Thus, we cannot be happy with superficial changes, however important. I don’t propose to throw the baby
out with the bath water, we must move from what has been started, but I do assert that it is not acceptable to continue to work within a system that does not allow us to see our interdependent relationship in the world. Incremental improvements are not enough, behaviour changes are necessary but not sufficient, and we need new ways of perceiving ourselves and others and the world around us. We need to move from a paradigm that reproduces society, to a vision of evolution, thus education must not simply be the agent of change, but the subject of change. We must move beyond the apparent limitations of the current paradigm to a paradigm that will facilitate EfS/ESD.

4.2 The Power of Paradigm

A paradigm is a worldview, one can think of it as a framework, a way of knowing. A paradigm is “made up of the dominant set of assumptions, values, and ideas that make up how a society views reality” (Leonard, 2010, p. xxvii). The difficulty is that we are so imbedded in our paradigm, that we are often blind to its influence on us and its effects on our perceptions and assumptions. Exploring our paradigm is difficult due to the fact that we are embedded within it and thus do not see that it is constructed and maintained by us. The optimistic part of a paradigm is that paradigms have changed through time, and I believe can evolve again by challenging assumptions and shifting our modes of thought.

To achieve such a move, we need to reorganize the hierarchy of our systems of understanding that inform our educational systems. We must move towards a new paradigm that emphasizes connectivity, relationships and continual reformation. Furthermore, this would allow for an understanding of the way in which students, teachers and education itself is embedded in society and subsequently subjects itself to a constant restructuring of meaning and values.
Although some argue that values and morals should not be taught at school and are best left for individual families we must understand that nothing is value free. The student, teacher and institution are embedded in society and subsequently culture and various ideologies and values. A human life cannot be separated into parts; we cannot separate the knowledge from values, or abstract concepts from context, nor economy from ecology. We have become so used to our institutions and interactions with them being divided into segments that “we forget that our lives are not abstracted and compartmentalized like this” (Vanderburg, 2000, p. 144). Modern schools are continually acting as if they have no connection to the political or dominant ideologies in which they are situated. Furthermore, schools are not acknowledging the connection between individual learners and knowledge creation as a continual process or generation and regeneration.

4.3 A New Paradigm

This brings me back to one of my original questions, the ideological problem; are we best served creating initiatives and programs to implement within the current paradigm which currently informs education, or are we better served fundamentally reorienting education into a new paradigm? Through investigation, it became clear that no amount of curriculum units and lessons inserted can overcome the overall impact of a system which promotes unsustainable ways of thinking. The structure of specialization, the economic model, subjects operating in silos, standardization and a business model of operations all run contrary to the development of Education for Sustainable Development. “Unfortunately, almost all existing school, curricula, which are officially approved by the formal educational systems in the world, fail to help their students embrace the emerging global ethic, as their main function is to preserve and reproduce the existing cultural traditions and policies characteristic of the consumerist society.” (Savelava, Savelau & Cary,
We fall into a dangerous trap in education when we create pre-determined outcomes and measure all success in reference to those static things. There must be a move away from linear thinking and obsession with progression to attainable ends and achievement of performance values. What is necessary is a more cyclical, ecological, way of thinking, more in line with the discipline of ecology.

In order to achieve sustainability, a shift in consciousness is necessary in order for us to have a sustainable society. In order for education to be the impetus and the key to change, there must be a change in the way we view and practice education. I believe a reorientation of the educational system towards an Ecology of Education paradigm will lead to new ways of learning, teaching and pedagogy based upon interconnectedness that will both support and create space for sustainable thinking, values, practices and behaviours.

The Ecology of Education is not an anti-Economy of Education or the Binary of it; it is focused on evolution from where we are to where we need to be in order to have sustainable societies. The Ecology of Education Paradigm is a more cyclical and enfolded way of thinking which is more akin to nature and its interconnected functioning, which is the motivation behind it. Subsequently, this paradigm emphasizes a focus on an understanding of connectivity, dependence and relationships as the basis for educational practices. In this view, education is seen principally as embedded in context and thus considers the interaction education has with individuals, society, the economy, and the environment (Vanderburg, 2000, p. 144).

A grounding is needed to give us an inspired reason for educating, we must philosophically investigate the need for a system to be built upon a philosophy that supports a more holistic understanding of the world. What we need is “…an extended and participatory epistemology, a connective ontology and an integrative praxis, affording a deeply relational sense of what it is to be
human at the most challenging of times. (Sterling, 2010, p. 217). “The most important mission of education for sustainable development (ESD) is clarifying and adopting the philosophy, ethics and psychology necessary for the new cultural and historical period of human civilization.” (Savelava, Savelau & Cary, 2010, p.) Friere provides a framework for how education helps societies learn and move forward with social change. Therefore, Freire can provide us with the philosophical grounding required to propel education as the impetus for change to a sustainable future.

Freire alone however, does not provide us with a philosophical basis sufficient enough to rest EfS/ESD upon. Freire’s work must be re-examined to evolve to meet the challenges of our current socio-historical context. C.A Bowers provides an ecological component lacking in Freire’s work and thus, by re-thinking Freire with the additional lens provided by Bowers, we can use Freire to provide the philosophical foundation necessary for a new paradigm for EfS/ESD.

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6 The limitations will be discussed in Chapter Three
Chapter 3

We must do and think the impossible. If only the possible happened, nothing more would happen. If I only did what I can do, I wouldn’t do anything at all.” (Derrida quoted in Giroux, 2003, p. 192)

This chapter will present a philosophical re-examination of Paulo Freire’s work by investigating some of his central concepts as they apply to EfS/ESD. I will then identify limitations in his work in its application to EfS/ESD and then endeavouring to transform his concepts through concepts from C.A Bowers work. This re-examination of Freire’s work is a means of achieving a paradigm shift in education which will allow for a philosophical grounding that will allow for the advancement of EfS/ESD. This chapter will be divided into three sections. In Section One, Freire’s philosophical background will be presented along with my rationale for using Freire’s philosophy within the context of my thesis. Freire’s optimism and belief in the capacity of humans to redefine our way of ‘being’ in the world and his belief in the ability of education to lead the way for change will define the use of his work. This section will also re-examine the role of education in the move towards sustainable societies and the emergence of a new paradigm. The main focus of the last half of the first section is the examination of Freire’s concept of banking education and its applicability to our current educational context. From there I will present Freire’s response to banking education by examining his liberatory vision of education through his critical pedagogy.

Section Two will move to investigate the limitations of Freire’s work in the context of EfS/ESD with a principal focus on the critique offered by Bowers. Moving through Section Two, I will problematize the critiques of Freire offered by Bowers and then present Bowers’ work as he envisions the change in education necessary for sustainable societies to flourish. Section Three will focus on re-examining Freire’s work by re-thinking central concepts by utilizing some of Bowers
ideas in order to truly develop a paradigm that can lead education to be both the subject of change and the impetus of change towards the emergence of sustainable societies.

Section 1: Freire – Philosophy and Context

1.1 Rationale for a Re-Examination of Freire in the quest for of EfS/ESD

My motivation for re-examining Freire in the context of our modern society and EfS/ESD is my view of his work as rooted in optimism and his belief in the capacity of humans to redefine their way of ‘being’ in the world. Education is currently submersed in a neoliberal culture that has been naturalized to students and thus presented as an unchangeable social reality rather than critiqued as an ideological movement imposed upon them (Hyslop-Margison & Sears, 2006, p. 15). “Sadly, for younger students who have lived inside this worldview their entire lives, their ability to even imagine a different social structure is barely perceptible” (Hyslop-Margison & Sears, 2006, p. 11). In order to overcome the fatalism of our current socio-historical context we need an alternative social vision, one that emphasizes “…social justice, economic equality and sustainable development rather than rampant individualism, unbridled consumerism and systemic competition” (Hyslop-Margison & Sears, 2006, p. 25). It is Freire’s belief that humans can move to see a world other than the one presented to them that gives me hope, and his belief in the ability of education to lead the way for change that gives me purpose.

Our socio-historical context is such that we find ourselves in a world that presents us with the belief that global markets and competition are inevitable and neo-liberalism is the end point to which humans have been progressing. “There is a lot of fatalism around us. An immobilizing ideology of fatalism, with its flighty postmodern pragmatism which insists we can do nothing to
change the march of social-historical and cultural reality because that is how the world is anyway” (Freire, 1998, p. 26-27).

In the face of such fatalism Freire tells us that we are not to be determined; that there are no inevitable realities and those oppressive structures, such as neoliberalism, can be transformed. “Freire’s work enhances our understanding and description of the world, and it is through his conceptual machinery that the transformation of unequal social relations may be effectively revealed” (Hyslop-Margison & Dale, 2010, p. 129). Freire’s work gives us a discourse and belief that we can experience both political and personal transformation. A sustainable future necessitates the need for us to realize reality is not fixed, it is made and transformed by humans, and that the “[w]orld and human beings do not exist apart from each other, they exist in constant interaction” (Freire, 1970/2011, p. 50)

Freire’s Pedagogy of the Oppressed arose from his personal experiences in Brazil where he and his family experienced poverty and alienation. This experience allowed him to develop a uniquely intuitive connection with the oppressed that surrounded him and ultimately led to his work on liberatory education. Freire’s imprisonment and exile following the military coup in 1964 furthered his devotion to liberatory education. Although Freire’s thoughts arose out of a specific geographical experience, oppression is an experience that transcends boundaries, cultures and politics and thus, can be applicable to contexts of oppression throughout the world. The aim of Freire’s Liberatory Education is to allow individuals to become informed citizens and critical citizens regardless of socioeconomic status, ethnicity, gender, religious background, or social identity (Hyslop-Margison & Dale, 2010, p. 155). The liberatory education Freire envisions is not a new doctrine to be delivered to students, but rather a relationship between students and teachers, students and learning, and students and society (McLaren, 1993, p. 26). It is for these reasons that we can use Freire’s work to
construct an educational vision in which self-development can go hand in hand with social transformation, and the struggle for social and ecological justice (McLaren, 1993, p.52).

Within our current socio-historical context, we see increasing marginalization and oppression of large groups of people all over the globe socially and economically along with rampant environmental exploitation, as a result of neoliberal ideologies and capitalist exploitation. In the capitalist countries of the West, the oppressed are sometimes more difficult to discern than those that which Freire based his work on in Brazil and Chile. However, the lack of an explicit distinction between the oppressor and oppressed in the West does not mean that there exists any less dehumanization of the oppressed; it just makes the liberatory process of generating awareness more challenging. The oppressed in this context have further difficulty realizing their oppression due to the increasing presence of a perceived standard of living brought about by the abundance of consumer goods. The lack of awareness in the oppressed and the naturalization of neoliberal ideologies such as rampant competition, individualism and exploitation have resulted in education views as a root to achieve economic success and thus, it perpetuates current structures of oppression and inhibits the ability of the oppressed to see their oppression. Thus, the oppressive structures of the West uphold neoliberal ideologies and capitalism which is the source of our unsustainable practices and worldview.

1.2 The Role of Education in Paradigm Change

According to Freire, it is only through education that people can become aware of their reality and their oppression and subsequently transform society. As stated in Chapter 2, education for Freire is never neutral and “…teaching is inevitably and even primarily a political act (and) a pedagogy that fails to challenge prevailing conditions actually operates to reproduce these
conditions intentionally or otherwise” (Hyslop-Margison & Dale, 2010, p. 8). Thus, if we are to move to sustainable societies the goal must first be a move to liberate both the minds and experiences of the teacher and student. This liberation of the minds according to Freire requires of education critical pedagogy embodied by critical literacy, problem-posing education, bottom up approaches, dialectical problem based relationships, and autonomy for both teacher and student. Freire’s critical pedagogy is essential for political change, social change and fundamentally paradigm change as it leads to the development of critical consciousness and can ultimately lead to transformative action. Unfortunately, much of the way education is viewed in our Western context is not education per se, but rather a method of credentialization (Hyslop-Margison & Dale, 2010, p. 76).

Within the Westernized education system, we find the oppressive ideologies of neoliberalism in the very structure of education, subjecting oppression onto the teacher and students and subsequently from the teacher to the students. Freire states, “I cannot avoid a permanently critical attitude toward what I consider to be the scourge of neoliberalism, with its cynical fatalism and its inflexible negation of the right to dream differently, to dream of utopia” (Freire, 1998, p. 22). Without the ability to dream differently, we will be unable to move towards a worldview based on principles of sustainability that are fundamentally different then the principles of capitalism.

“The new-hidden curriculum or ‘pedagogical unsaid’ is the attempt to de-form knowledge into a discrete and decontextualize set of technical skills packaged to serve big business interests, cheap labour, and ideological conformity” (Steiner, 1999, p. 16) In the forward to Pedagogy of Freedom (1998) Donaldo Macedo asserted that education has committed an unholy violation of the new common sense; that the highest mission of education has become the preparation of students to take their place in the corporate order. He goes further to state the banking theory of education,
which Freire identified more than thirty years ago, has returned with a vengeance (Freire, 1998, p. 4)

1.3: Banking Education

Education reduced to credentialization and its inherent structures is what Freire termed ‘banking Education.’ “Banking education is an act of depositing, the teacher deposits information to which the students are to receive, memorize, and repeat” (Freire, 1970/2011, p. 73). Thus, with the banking system of education, learners are turned into ‘containers’ or ‘receptacles’ to be filled by the teacher (Freire, 1970/2011, p. 72). The structure of banking Education is such that it produces passivity and static perceptions rather than individuals viewing life as a journey to many possible destinations (Hyslop-Margison & Dale, 2010, p. 98). “The capability of banking education to minimize or annul the student’s creative power and to stimulate their credulity serves the interests of the oppressors, who care neither to have the world revealed nor to see it transformed” (Freire, 1970/2011, p. 73). This approach inhibits thinking, controls consciousness, reinforces consumer mentalities, uncritically conveys ideologies and ultimately leads to the dehumanization of students and the continued destruction of the natural world (Hyslop-Margison & Dale, 2010, p. 82).

Inside the banking concept of education lies “…a dichotomy between human beings and the world: a person is merely in the world, not with the world or with others” as the world is presented as “…motionless, static, compartmentalized and predictable” (Freire, 1970/2011, p.75 & 71). Thus the oppressed adopt, unquestioningly, the oppressors consciousness and “[t]he oppressor consciousness tends to transform everything surrounding it into an object of its domination, the earth, property, production, the creations of people, people themselves, time – everything is reduced to the status of objects at its disposal” (Freire 1970/2011, p. 58).
At the heart of our disconnect with the world and others and the subsequent unsustainable societies is the reduction of humans and the biosphere to objects to be used in the advancement of capitalist production. Oppressive economic disparities, social inequities and environmental destruction arising from our capitalist society are the result of the modernist views of linearity, the postmodern individualism and of course neoliberal and capitalist ideologies. This context is embedded in the current model of the banking concept of education that subsequently serves the oppressors ideological purpose of maintaining the current context by “...creating a passive and compliant mainstream population that is virtually non-resistant to neoliberal excesses and exploitation” (Hyslop-Margison & Dale, 2010, p. 82).

In the current socio-historical context, banking education is set-up to appease capitalists; students learn from day one that their success ‘hinges’ on their ability to conform to expectations, outcomes and achieve high-levels of performance. Certainly we do not want to have low-levels of performance, nor lower standards for our students. The problem in the current paradigm with a focus on success as achieving high-levels of performance, is that high-levels of performance are based on increasingly mastering the standards outlined by the governing body and experts. Furthermore, in our neoliberal climate, those standards are designed to appease the capitalist demands and to reinforce dominant ideologies. Success then as high-levels of performance, becomes one’s ability to fit into the current paradigm and economic model. In Pedagogy of Freedom, Freire states that a sign of the times that frightens him is “[t]he freedom that moves us, that makes us take risks, is being subjugated to a process of standardization of formulas and models in relation to which we are evaluated’ (Freire, 1998, p. 102).

The result of the standards based environment is that “people and ideas are compartmentalized, objectified, and conditioned to believe that social change is impossible...” and
that the current structure is an inevitability rather than a constructed view (Hyslop-Margison & Dale, 2010, p. 81). This top-down determinist structure has an ideological affect that Freire states results in dehumanization as it undermines human reason and action, or what he described as Conscientização (Hyslop-Margison & Dale, 2010, p. 81). Conscientização (which will be discussed further in the next section), is the development of critical consciousness which occurs when people critically reflect on historical experiences and social reality (Hyslop-Margison & Dale, 2010, p. 63). Conscientização is meant to promote our recognition in our capacity to make personal and social change (Hyslop-Margison & Dale, 2010, p. 147). Through Conscientização students begin to think critically of the world around them, and can move to envision change and transformation. Freire goes further, stating that critical reflection alone is not enough, people must act in order to transform reality and thus what he calls praxis is at the heart of this approach. Praxis, in basic terms, “describes thought and action comprising the ethical and political life of humankind” (Hyslop-Margison & Dale, 2010, p. 147).7

Under the influence of our current socio-historical context, in which education has served to domesticate students into dominant ideologies, Conscientização is inhibited if not almost impossible. Education under the banking concept has been formalized into technique in order to achieve the passage of students into the dominant paradigm and have them assume their role in the capitalist machine. We can further see the banking model manifested within thinking, policy and practice within education. The focus on standardization, learning and performance outcomes, accountability as determined through measurement, and prescribed teaching practices are all symptoms of the banking model. Teaching has been transformed into technique through the advent of “Best Practices” and standardized tools in order to achieve pre-determined learning outcomes for students.

7 Praxis will be discussed in further detail later in the chapter.
Freire holds that meaning is constructed and as such, we cannot focus on the “objective” transfer of knowledge through techniques such as assumed “Best Practices” as a root towards static pre-determined ends. The assumption that knowledge and skills can be acquired through the discovery of “what works” and then to measure success in a standard way is to dehumanize education. To assume that each student will receive the knowledge in the same way, construct and understand the knowledge in the same way and then subsequently communicate that knowledge in the same way is to deny the inherent nature of humans to create meaning through their own lens or mapping. “If teaching is to have any effect on learning, it is because of the fact that students interpret and try to make sense of what they are being taught. It is only through processes of (mutual) interpretation that education is possible” (Biesta, 2007, p. 8).

Freire states that “…our being in the world is far more than just ‘being’. It is a ‘presence’, a ‘presence’ that is relational to the world and to others.” (Freire, 1998, p. 25) Freire goes on to assert that “…to transform the experience of education into a matter of simple technique is to impoverish what is fundamentally human in this experience; namely, its capacity to form the human person” (Freire, 1998, p. 39). The process of formation to Freire is never finished, it is our human condition to constantly be constructing and reconstructing meaning. Thus, humans are continually involved in a construction of self through a process of praxis in the form of continually reflection upon experience and subsequent learning, action and further inquiry.

To achieve Conscientização, Freire argues for a learner based epistemology and what he calls an epistemological curiosity (Freire, 1998, p. 25). The goal then is to “set-off in the learner an ever-increasing creative curiosity” by creating the “possibilities for the production and construction of knowledge” (Freire, 1998, p. 30&32). The teacher then must be free to “create possibilities for the construction and production of knowledge rather than to be engaged simply in a game of
transferring knowledge” (Freire, 1998, p. 25). Furthermore, it is necessary to realize that both student and teacher are learners and that one in turn learns from the other. Thus, there is a reciprocal formation and reformation of both the teacher and student as knowers. As a result of this reciprocal relationship the teacher must continually engage in a process of critical reflection on practice in order to improve strategies for their current students and their context.

This practice becomes difficult if not impossible when teachers feel pressured to have students achieve set performance values and are evaluated both formally and informally by administration according to standards such as “Best Practices”. How can teachers encourage human agency in their students and allow them to envision alternative social structures if they are subject to impose upon students? “Teachers cannot be effective when they remain in the thrall of an exploitative school system that robs them of their own voice” (Biesta, 2007, p. 13). Biesta holds that the most important question for educators is not about effectiveness but rather about the “educational desirability of the opportunities for learning that follow from their actions.” (Biesta, 2007, p. 10). Thus a value judgement on the part of the teacher is required in order to understand and make decisions about what is educationally desirable for their students (Biesta, 2007, p. 11).

“To suggest that research about ‘what works’ can replace normative professional judgement or what Freire calls common sense, to deny educational practitioners the right to act according to the context of their environment and students cultural embeddeness (Biesta, 2007, p. 8). This limits both the ability of the student and teacher to imagine alternative social structures and serves once again to maintain the hold of exploitive neoliberal ideologies over the current socio-historical context.
1.4 Critical Pedagogy

Freire’s answer to the undemocratic banking concept of education and the root for social transformation and the ability to create paradigm change is his critical pedagogy. Freire’s critical pedagogy is a means of transformation, not a method of instruction such as a standard or ‘best practice’ to be uniformly applied. Critical pedagogy fosters critical consciousness and provides social alternatives to the oppressor/oppressed dialectic of capitalism; “…students reinvent their historical roles by using their agency to act upon the world” (Hyslop-Margison & Dale, 2010, p. 83). The significance of critical pedagogy stems from the empowerment it gives to a person to decode ideological dimensions of social structures and practices and then to seek to transform them.

In Freire’s Pedagogy of the Oppressed he seeks to provide a foundation upon which the oppressed can come to understand and act upon their oppression from a critical perspective. The key to Freire’s liberating education or critical pedagogy is understanding the oppressed/oppressor relationship. In the current Western socio-historical context, the oppressor/oppressed relationship is more difficult to discern as the oppressed are not as overtly disadvantaged as those in “developing countries”. This furthers the inability of the oppressed to realize their oppression is disguised by increased standards of living as based on commodities and ‘functional literacy’. The oppression is caused by economic and political ideologies imposed upon the masses by the oppressors which have ultimately lead to policies and structures which have caused dehumanization through consumerism, the disappearing middle class, environmental exploitation and urban decay.

The oppression is evident in the fatalism of neoliberalism that Freire spoke about as neoliberal ideology is naturalized through contemporary curricula that typically describes present circumstances to students in terms that suggest either their inevitability or their desirability (Hyslop-Margison & Dale, 2010, p. 134). In our socio-historical context this condition also results in the
oppressed seeing the oppressor’s image as what it means to be human and the oppressors goals, expectations, relationships and views of the world are internalized and idealized by the oppressed. The concepts of self-worth, significance and importance have been tied to the acquisition of goods and it is this desire that drives overconsumption and the degeneration of the environment and social inequity. The quest for the oppressor’s life has led to the value of learning and education being related entirely to the potential of economic return. When the purpose of education becomes about preparation for an individual to take part in the capitalist society, EFS/ESD becomes virtually impossible.

In order for the “oppressed to be able to wage the struggle for their liberation, they must perceive the reality of oppression not as a closed world from which there is no exit, but as a limiting situation which they can transform” (Freire, 1970/2011, p. 49). Freire views education as the key to achieving the critical consciousness necessary for the awareness of assumptions and subsequently transformation. Unfortunately, the ability of education to achieve this in the current context is virtually impossible within the current education system which is structured under neoliberal ideologies. The mechanistic structure of education through specialization, fragmentation of knowledge, top-down approaches, and standardization has led to “...nearly all learning space occupied by an elaborate testing apparatus that measures the student’s progress in ingesting externally imposed curricula and more insidiously, provides a sorting device to reproduce the inequalities inherent in the capitalist market system” (Freire, 1970/2011, p. 5). Furthermore, the fragmentation of subjects into specialization serves to perpetuate a disconnect between humans and the environment which inhibits our ability to see larger connections in the world as well as mitigates our understanding of consequences of our actions.
Freirean pedagogy’s goal is to free learners from the ideological constraints that limit their capacity to think and act independent of hegemonic norms and values (Hyslop-Margison/Emery, 2010, p. 144). In order to do this, learners must achieve critical consciousness, thus Freire advocates for what he calls problem-posing education. “In problem-posing education [people] develop their power to perceive critically the way they exist in the world with which and in which they find themselves” (Freire, as quoted in Hyslop-Margison, 2010, p. 150). Thus, problem-posing education allows learners to dream of a world that could be otherwise; more importantly, it allows for paradigm change. The achievement of critical consciousness that allows for transformation is what Freire calls Conscientização.

In order to achieve Conscientização, education must seek to develop critical literacy, not merely instrumental literacy. Instrumental literacy is merely an ability to read as a function and results in a view of the world that is static and objective while critical literacy teaches how language is socially constructed. With critical literacy, one questions assumptions and becomes aware that the text carries ideologies and thus individuals begin to think critically, and move towards a critical consciousness. Freire also adamantly states that critical consciousness, although essential, is not sufficient to achieve social transformation, there must also be action. This action is the result of what Freire calls praxis. Praxis is a dialectical relationship that involves action, reflection, and transformative action. Praxis is not a static thing, it is a process that individuals engage in continuously, resulting in continual transformation. Praxis connects humans and the world as it is not an abstract concept but rather an interaction with the world. Through this pedagogical approach people can question all aspects of social and political history and dream and explore alternative social possibilities (Hyslop-Margison/Emery, 2010, p.83).
Unlike banking education that retards and can prevent the divergent thinking necessary for social change, critical pedagogy is democratically rooted in dialogue, relationships and transformation. The basis of Freire’s critical pedagogy is to provide students with the opportunity to “question the social construction of reality in order to enhance their understanding of both its construed nature and their own ability to reconstruct society” (Hyslop-Margison, 2010, p. 84). Freire’s vision is that students that are critically reflective will become critically reflective citizens and thus able to transform society by realizing oppressive structures and alternative realities. Freire also believed that critical and rational people, regardless of social class, would transform oppressive and dehumanizing situations as human beings. Essential to achieving Efs/ESD and countering current unsustainable practices and views is the need to critically investigate entrenched social systems and economic values (Sterling, 1998, p. 106). Education for sustainability must question dominant forms of knowledge and values and move to transform towards desirable futures based on sustainable principles.

Section 2: Freire - Limitations and Critique

2.1 Limitations of Freire’s work in the context of Efs/ESD

Freire’s work has been a source of inspiration for over three decades. He has provided a language for the disenfranchised to dream of a world other than the one they are in and has given a vision of transformative possibilities. He condemns oppressive structures within society and adamantly opposed educational practices that serve to perpetuate the oppressor/oppressed relationship. His critical pedagogy, which is embodied by critical literacy, problem posing education, liberation and praxis has provided generations with a philosophical basis for overcoming oppressive realities.
Freire’s work has also come under scrutiny and contains perceived limitations in its application for EfS/ESD. The limitations and critique presented here will focus primarily on those asserted by C.A. Bowers. Some of the main problems critics such as Bowers point out with Freire’s work and EfS/ESD is that his critical pedagogy is dualistic and grounded in an anthropocentric view.\(^8\)

It has been argued that the duality and anthropocentric nature of his work has limited transformative abilities for EfS/ESD as it lacks an ecological component and reproduces thinking that has led to our current unsustainable thinking (Mayo, 2004, p. 99). The duality of Freire’s work, the oppressed/oppressor relationship, as well as his work rooted in the concept of classism, has also led to criticisms that his work is underwritten by modernist, Marxism discourses which often seriously ignore issues of race, gender and sexual orientation and most importantly for EfS/ESD, ignores the ecological crisis (Steiner, 1995, p. 15).

C.A. Bowers is a leader in the field of environmental educational philosophy and finds Freire’s work problematic stating that his philosophy perpetuates Western ways of thinking and viewing the world. In *Elements of a Post-Liberal Theory of Education*, Bowers critiqued the foundations of Freire’s critical pedagogy stating that it rests upon Liberal assumptions that ultimately undermine the validity of his pedagogy for addressing sustainability issues. Freire’s assumptions which Bowers states are problematic are (Pinar, 1995, p.2):

1. The assumption that “making history” (creating change) is always progressive.
2. That the individual is the basic social unit within which we locate freedom and rationality.
3. Human nature is basically good.
4. Rationality is the real basis of authority.

\(^8\) An anthropocentric view is a view that is founded upon a human-centered ethic and view of the world. That is, all ideas and concerns are referenced from human concerns, experience and values. This is in contrast to views that see humans not as the centre of the world and everything in relation to humans but rather humans as part of a larger whole of which they are apart and thus the value of things is not contingent on human values.
Bowers states that these assumptions are based on inherent biases in Freire’s thinking that prevent him from addressing unsustainable societies. Bowers (2005) outlines four main biases that have led to these assumptions (Bowers, 2005, p. 149):

1. Freire’s emphasis on humans possessing a universal essence which results in his philosophy not accounting for differences in cultural ways of knowing.
2. Freire’s view of the nature of change as progressive ignores the different ways cultures interpret the past and its current and future relationships.
3. By recognizing critical reflection as the only genuine source of knowledge Freire delegitimates other forms of knowledge.
4. The anthropocentric nature of his pedagogy undermines further cultures that have previously developed complex systems of interspecies communication.

In False Promise of Constructivist Theories of Learning, Bowers sees the adaptation of constructivist theory, with Freire as one of the fathers of constructivist theories, as a detriment to an ecologically sustainable future. Constructivism is a branch of learning theory in which it is held that people create, or construct meaning through acts of discovery and interpretations (Bowers, 2005, p. 3). Bowers sees constructivism as a detriment because the foundations in the work of Dewey and Freire ignore the cultural context of learning and thus, impose a single view of learning. Bowers states that a single view of learning becomes problematic for sustainable paradigm that necessitates the incorporation of diverse ways of knowing.

In the vein of constructivist theories, Bowers believes that intergenerational knowledge is undermined due to the emphasis placed on students’ construction of their own knowledge (Bowers, 2005, p. 8). “Freire’s argument that critical inquiry is the only way that individuals can achieve the highest ontological expression of their beings is also imperialist rather than democratic in the sense of not recognizing the legitimacy of other cultural approaches to acquiring knowledge and making decisions” (Bowers, 2005, p. X). Although critical reflection and inquiry are highly useful in certain
contexts, other forms of knowledge and intergenerational knowledge might be more appropriate in others (Bowers, 2005, P. XI).

Freire argued for each generation to re-name the world of the previous generation through critical reflection; however one of the unfortunate consequences of this emphasis is that it further marginalizes democratic decision making in any culture; namely, what traditions and knowledge should be renewed to create sustainable societies (Bowers, 2005, p. 4). Bowers holds that the assumption that progress is inherently good has deadened awareness of cultural knowledge and traditions that are worth renewing. The focus on progress as good, as well as the emphasis on the individual’s own construction of knowledge “…contributes to the rootless form of individualism that serves the interest of the modern state” (Bowers, 1987, p. 132). By seeing traditions and intergenerational knowledge as negative and in need of re-naming, Bowers believes Freire’s position leaves us with a world in which all forms of authority are relativized and thus, a world with no shared moral, intellectual or social claims (Bowers, 1987, p. 131). Bowers goes further asserting that Freire’s representation of reality as a process demonstrates a lack of understanding of our cultural embeddedness and how changing all beliefs leads to a loss of meaning and commitment (Bowers, 1987, p. 131). This loss of meaning comes from educating individuals to construct their own knowledge thus creating conditions of alienation to participating in the community networks (Bowers, 2005, p. 8).

For Bowers this leads to a further problem in which Freire’s focus on individual critical awareness negates the importance of shared or community authority. This concerns Bowers, as truth then seems to become relative to the knower thereby mitigating concepts of knowledge outside of the knower and limiting our ability to evaluate various ‘truth’ claims. Bowers also finds Freire’s belief that a rational person will inherently seek to liberate oppression problematic. “Freire
assumes that the person with a raised state of consciousness will be essentially selfless in the pursuit of the common good” (Bowers, 1987, p. 130). What Freire ignores is the possibility that critical reflection may work for self-interest to produce a more powerful and socially disruptive individual (Bowers, 1987, p. 130).

According to Moacir Gadotti, just before Freire’s death, Freire was working on an Ecopedagogy that would have made him a leader in the field of EFS/ESD (Kahn, 2010, p. 18). Unfortunately these works were neither finished nor published and thus we are dependent on Gadotti’s publications of Freire’s concepts. Gadotti holds that Freire’s final reflections stated the need for an eco-humanism. This eco-humanist philosophy was to be an ecopedagogy based on the transformative notion within critical pedagogy. This philosophy is said to take Freirean ideas of humanization and merge them in the lens of ecological politics (Kahn, 2010, p. 18). Despite these late attempts to incorporate and according to Gadotti, rethink his work in the realm of ecopedagogy, Bowers still feels that the ecopedagogy is based on many of the same liberal assumptions that underlie Freire and the current western-consumer based society. As a result, even this later work is dismissed by Bowers as insufficient to address the issues of sustainability (Bowers, 2004, p. 45).

Bowers takes issue with what Gadotti states is Freire’s goal; an ecopedagogy that will transform the world’s diverse cultures into “citizens of a single nation” (Bowers, 2004, p. 46). Bowers holds that his way of thinking reproduces Western assumptions and sees globalization as a process of advancement which inevitably undermines the diverse cultures of the world along with intergenerational knowledge. The continued focus upon the individuals own creation of knowledge remains problematic for Bowers as critical pedagogy theorists are “… unwilling to consider the possibility that individuals, when relying on their construction of knowledge and values, might not
develop the planetary consciousness he envisions as averting ecological disaster” (Bowers, 2004, p. 47). Furthermore, it would be detrimental to ignore the many cultures that already have the intergenerational knowledge and traditions that allow them to live sustainably within their regions (Bowers, 2004, p. 45).

2.2 Problematizing Bowers Critique of Freire

In his critique of Freire, Bowers raises various claims that are relevant concerns when looking at the application of Freire’s work in the context of EfS/ESD. Despite the perceived validity in these claims, these claims need to be problematized as they seem to run contrary to notions in Freire’s critical pedagogy and thus, create greater perceived barriers to its application to EfS/ESD than necessarily exist.

The anthropocentric nature of Freire’s work does create problems for his critical pedagogy’s application to sustainability issues. His statements of animals and their lower status than humans is troubling and contrary to a paradigm that supports sustainability. Despite this component in his work, it is also important to note that when one reads the corpus of Freire’s work, his later writings appear to move towards a less anthropocentric notion. In Pedagogy of Indignation (2004) Freire wrote, “[e]cology has gained tremendous importance at the end of this century. It must be present in any educational practice of a radical, critical, and liberating nature” (p. 47). From his use of the term ecology rather than environment, we can assume Freire meant more than “nature” as ecology included all life in the biosphere. The question that does remain and that must be addressed in re-inventing Freire in the context of EfS/ESD, is whether animals are still subjugated to humans. Any re-invention of Freire’s work must include all elements of the biosphere in his concept of liberation and see humans as a part of the biosphere, rather than distinct from it. What makes Freire’s work
so important, among many other qualities, is that Freire himself demands of his work a renegotiation of it over time and context and thus gives us room to re-invent his work in our current context.

Michael Apple, Wayne Au, Peter McLaren and Richard Kahn are among many thinkers that argue that claims by critiques such as Bowers, of Freire as a proponent of Enlightenment individualism needs to be “problematized in large part because fundamentally it represents a deep misunderstanding of Freire’s conception of human development and knowledge” (Apple & Au, 2001, p. 459). Claims such as those by Bowers that Freire’s work promotes individualism that perpetuates capitalist structures are the result of a misunderstanding of Freire’s ontology. “Autonomy, in Freire’s ontological reflections, was not a slight against collectivism, but about moving away from being a blind instrument of the ruling class to becoming an initiator of praxis, from being a clerk of capitalism, to becoming an active agent for social struggle” (McLaren, 2007, p. 105).

Within Freire’s pedagogy there is no isolated individual, no subject that can think alone and thus, there is no “I think” but rather “we think” in which individuals are in constant interaction with others and the world (Apple & Au, 2007, p. 459). “Freire was quite clear that we cannot distinguish between humans and the world and that our thinking is socially situated and developed socially – cultures and communities included” (Gee, quoted in Apple & Au, 2007, p. 459). In Education for Critical Consciousness (1982) Freire states that humans are constantly interacting with the world around them, including others dialectically and as such we can see that he neither perceives nor presents a dichotomy between humans and the world (Apple & Au, 2007, p. 459). In Pedagogy of Freedom Freire speaks of humanity’s ontological vocation, “which calls us out of and beyond ourselves. Or as I speak of our being as something constructed socially and historically and not
there simply a priori” (Freire, 1998, p. 25). Freire is clear that he sees humans in a relationship with the world as he states “our being in the world is far more than just ‘being’. It is a ‘presence’, a ‘presences’ that is relational to the world and to others” (Freire, 1998, p. 25). What does need to be explored further in this area of Freire’s work, is the need to understand relationships as not humans with the world but still distinct from it, but rather as humans co-existing with the biosphere of which we are apart and mutually influencing one another.

Bowers’ assertion of the individualistic nature of Freire’s critical pedagogy also stems from a misunderstanding of knowledge construction within Freire’s philosophy and from this, Bowers interprets it as an individualistic construction of knowledge that will lead to relativism. However, it is clear that Freire views humans and the world in constant interaction, and that he sees teaching as based in dialogue and mutual learning, which illustrates that Freire does indeed view learning as a social act. Both Apple and Au (2007) see this misconception of Bowers stemming from a misinterpretation of Freire’s dialectical logic. “Unlike Western rationalism, which functions linearly and constrains itself to an ‘either-or’, dichotomous perspective, dialectical logic is much more fluid, denies stagnancy and permanence, and sees the world in terms of relations between ‘things’ in terms of ‘both’” (Godotti, quoted in Apple & Au, 2007, p. 459). Freire again makes it clear in Education for Critical Consciousness that he views knowledge as a social act when Freire states that our knowledge, is a social consciousness and that “subjects cannot think alone” as we are socially situated and develop socially (Freire, quoted in apple & Au, 2007, p. 459).

Bowers’ belief in the importance of traditional knowledge in a movement to counter current exploitive practices has also led him to critique Freire’s pedagogy as to focused on re-naming the world anew. Bowers sees this notion of Freire’s re-naming the world and Freire’s emphasis on critical reflection as dismissive of traditional knowledges as well as perpetuating
change as a progressive force that requires constant overturning of traditions (Bowers, 2003, p. 5). Bowers further states that “[c]ritical pedagogy theorists echo Freire’s injunction that each generation should rename the world- that is, free themselves from the traditions of their community” (Bowers, 2003, p. 5).

Bowers assertion of Freire’s concept of change and dismissal of cultural transmission seems to be the result of a misinterpretation of the banking concept of education. It seems Bowers’ thinking is that “Freire is against the banking approach to education, and therefore must be against cultural transmission all together” (McLaren, 2007, p. 102). Freire was very clear however, on the importance of indigenous knowledge as well as knowledge students carry with them in the process of education. Freire states that “you have to respect the cultural context, the ‘educands’ concrete localization, because that is the starting point for education, and to ignore this point is to ignore the world” (Apple & Au, 2007, p. 461). Freire states clearly that,

with progressive education, respect for the knowledge of living experience is inserted into the larger horizon against which it is generated...respect for popular knowledge, then, necessarily implies respect for cultural context. Educands’ concrete localization is the point of departure for the knowledge they create in the world. Their world, in the last analysis, is the primary and inescapable face of the world itself (Freire quoted in Apple & Au, 2007, p. 461).

What Freire calls for in his critical consciousness is not to dismiss traditional or cultural knowledges, but rather to not accept unquestioningly knowledge from anywhere, neither past nor present. “What Freire calls for is the creation of a critical disposition towards knowledge in which the student and teachers engage critically both traditional as well as oppositional knowledge from the past and present in an act of knowing that involves co-investigation” (McLaren, 2007, p. 102). It seems naïve to assume that to critique traditional knowledge and the process of re-naming it to our current context, is the same as dismissing it. There are, as Bowers pointed out, many valuable and

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9 Freire refers to students as ‘educands’
important cultural knowledges and traditions that give us meaning and provide insights into sustainable living. Bowers’ focus on the importance of intergenerational knowledge and knowledge of indigenous peoples towards EfS/ESD is without question of great importance in our quest for sustainability. Yet, not all indigenous knowledges promote sustainable practices, nor equity. Furthermore, one could argue that past traditions and generational knowledge also include Enlightenment traditions that have led to our current unsustainable predicament.

In Pedagogy of Hope, Freire states “[w]hat is impermissible – I repeat myself, now – is disrespect for the knowledge of common sense. What is impermissible is the attempt to transcend it without starting with it, and proceeding by way of it” (Freire, quoted in McLaren, 2007, p. 103). With this respect in mind, Freire says it is our duty to challenge students preconceptions and taken-for-granted assumptions. It is important to understand that questioning does not mean rejecting, and you can respect cultural knowledge while examining it. McLaren asks “[w]hy can’t knowledge be transmitted with historical explanation and cultural analysis? It can help to revalue traditional knowledge in new and dynamic ways” (McLaren, 2007, p. 1). Freire states that we must remember, and this is particularly poignant in transitioning to a sustainable thinking, that “the regional emerges from the local, that national emerges from the regional, the continental emerges from the national, and the worldwide emerges from the continental” (McLaren, 2007, p. 103). Freire also rightly states that just as it would be a mistake too focus to greatly on the worldwide view (the larger view) it is also a mistake to get stuck in the local.

Freire clearly acknowledges that thinking and interacting with the word and the world is not a simple linear progression of critical thought. Freire speaks about our embeddedness in cultures and context, our need to work within those various local contexts while simultaneously acknowledging the larger whole of which we are all a part. Even though Freire calls for re-naming
and transforming the world, it does not follow that he necessarily means we must remake everything anew. Freire is asking us to discover critically what is both enabling and disabling in our interactions with the world and to apply traditional knowledges to new contexts (McLaren, 2007, p. 106). Freire’s pedagogy becomes important for EfS/ESD precisely because it provides a framework “for linking knowledge, meaning and experiences of places and environments to an understanding of the processes and forces that have produced environmental injustice in the first instance” (McLaren, 2007, p. 106).

Despite the misconceptions of Freire’s work and critical pedagogy that critiques such as Bowers hold, Bowers’ critique does provide us with a good basis upon which to critically examine Freire’s work and re-conceptualize its relevance for EfS/ESD. By interrogating Freire under the critique of Bowers we are able to have a greater understanding of how Freire’s work can lay the foundation for EfS/ESD as well as areas in Freire’s work that need to be re-invented. Freire himself encouraged educators to challenge his ideas and reinvent them in the contextual specificity of their own local, national and transnational struggles (McLaren, 2007, p. 105). In this case, we must ensure Freire’s ideas are clearly understood and that those that are problematic for EfS/ESD are re-invented in order for his work to be the basis of a new paradigm for sustainability. Critique like Bowers, along with Bowers own philosophy, will allow us the necessary lens and re-naming needed to achieve this.

2.3 C. A Bowers

Bowers believes that “no single educational reform will be adequate in itself in bringing our cultural practices into balance with the life-sustaining capacities of natural systems” (Bowers, 1993, p. 145). Bowers states that two reforms are required in order to achieve sustainable societies. The
first reform involves cultural literacy which is a means to decode taken-for-granted cultural assumptions and patterns through the examination of approaches to teaching, working, competition, individualism, and other assumptions (Bowers, 1993, p. 145). This, Bowers believes would foster critical consciousness but also decenter the anthropocentric position of Freire by not merely being critical of assumptions but by examining what is and what is not valuable in society. The second reform requires the need to reconnect people to spiritual disciplines that have been the basis of humanity and the source of connections to others and the earth until the emergence of the ‘myth’ of modernization (Bowers, 1993, p. 146).

For Bowers these two reforms are essential in order to expand connectedness and move away from the Cartesian position of culturally free individuals. These reforms will lead to “a premise of expanding our mind outward to the point where we can recognize self as part of the info-exchange process that constitutes the ecology of which we are apart” (Bowers, 1993, p. 146). This requires the rediscovery of narrative forms of communication that differ from current forms of functional literacy such as oral traditions, which could lead to greater understanding of cultural ways of knowing (Bowers, 1993, p. 200).

Bowers states that Western ways of thinking are permeating around the world, consumerism is everywhere and “what is often overlooked is that the industrial-based spread of consumerism is dependent upon a transformation in consciousness that leads to experiencing oneself as an autonomous individual” (Bowers, 2005, p. 2). Thus, any reform that focuses on the emancipation of the individual through their own construction of knowledge as the only way of knowing fundamentally undermines the inherent co-dependence of humans with one another and with the world. By discarding knowledge embedded in experience derived from past generations we lose the knowledge and traditions that can give us meaning and sustainable practices. This is
not to say that all traditions and intergenerational knowledge is valuable, but rather, it is most importantly not all bad and oppressive.

According to Bowers, often within the field of critical pedagogy, traditions and intergenerational forms of knowledge are seen in a negative light and “...are naively regarded as sources of oppression and self-alienation” (Bowers, 1987, p. 274). Bowers continues noting that most daily activities are based on traditions and that the problem is not the traditions, it is the lack of education and language necessary for making these taken-for-granted patterns explicit (Bowers, 2005, p. 4). By ignoring the cultural traditions and knowledge of generations we lose knowledge about sustainable practices in bioregions and our larger connection to each other and the commons. In order to develop the consciousness necessary for sustainability, instead of dismissing traditions and intergenerational knowledge we must seek to understand its relevance to our future. Education must provide a new level of literacy, a cultural literacy, a literacy that provides individuals with the ability to decode hidden assumptions that would allow for the decoding of assumptions (Bowers, 1993, p. 9). Once we can decode taken-for-granted assumptions we can decide what traditions and knowledge should be renewed and which should be ne-named. This is the first step in demystifying the ecologically unsustainable aspects of culture and modern knowledge and communicating what is problematic about them (Bowers, 1993, p. 9).

Bowers writes that “…social reality is shared, sustained and continuously negotiated through communication” (Pinar, 1995, p. 274). Subsequently, Bowers claims that a major problem with Freire and liberal theory is the myth of emancipation from embeddedness (Bowers, 1987, p. 56). “What Freire should address is the particular forms of embeddedness (the structural and ideological elements) that contribute to poverty and stunt the development of human potential, while at the same time recognizing that social reform – even when genuinely revolutionary – will
not eliminate individual embeddedness” (Bowers, 1987, p. 56). Bowers believes that acknowledging embeddendess and acknowledging that individuals are social-cultural beings rather than autonomous, self-directing beings, does not mean we have to ignore Freire’s concern with the problems of exploitation and self-alienation (Bowers, 1987, p. 57). Freire himself acknowledges that an individual’s thought patterns and discourse are influenced in profound ways by their epistemological categories embedded in language. Socialization occurs through the social reality that is shared and constructed though interactions and through this, the individual’s subjective self is built up and provides the lens through which the individual makes sense of everyday life (Pinar, p. 59). What we need to be aware of is there is a cultural unconscious, and a theory of education must have a form of cultural literacy which can provide the ‘moves’ necessary to examine taken-for-granted assumptions give individuals the conceptual distance needed to reflect and critique them(Pinar, 1995, p. 275).

Section 3: Re-Examining Freire for EfS/ESD

3.1 Re-thinking Freirean Concepts.

In the quest to find a philosophical grounding upon which to base education in order to move education to the forefront of change for sustainable societies, there are obvious advantages as well as disadvantages within Freire’s work. Bowers critique of Freire’s critical pedagogy makes it clear that utilizing Freire’s philosophy without re-envisioning areas is insufficient to create the kind of change in thinking that is necessary for paradigm change. Bowers, who critiques Freire’s work principally on the basis of his belief that it further perpetuates the Western thinking that has resulted in unsustainable practices, presents us with a philosophy based upon an ecological lens and the need to preserve diverse ways of knowing.
Bowers work contains important components towards creating a new paradigm in which to situate Efs/ESD, however, it remains insufficient in its own right to impact change within our current socio-historical context. Without a doubt we must move beyond an instrumental and narrowing humanistic and anthropocentrism approach to education, however, this cannot be achieved with a blanket rejection of the philosophical principles in Freire’s work (Stables and Scott, 2001, p. 270). As outlined in Section 2.2 it would be erroneous to outright dismiss Freire’s work in its application to Efs/ESD based on critiques by Bowers and other like thinkers. Much of the criticisms explored are based on misconceptions and or incorrect applications of Freire’s pedagogy. Furthermore, one could argue that the ecological crisis is surely a crisis of humanism and thus it is naïve to embrace ‘deep ecological’ positions which deny the significant of human consciousness in the construction of world views (Stables and Scott, 2001, p. 270). Bowers advocates strongly for an examination of past, pre-modern cultures in order to retrieve ecologically sustainable knowledge’s, however, “...Bowers is surely equally guilty of failing to acknowledge the ideological and cultural impacts in our own readings of the past” as he accuses Freire of overlooking in his philosophy (Stables and Scott, 2001, p. 272).

Education for sustainability cannot rest primarily upon an anthropocentric approach inherent in Freire’s philosophy, nor can it rest primarily upon environmental foundations such as those of Bowers. What we need is an educational philosophy for Efs/ESD that takes into account all components of humanness, not just the intellect but also the physical, ethical, spiritual and emotional components as well as the interactions with others, the environment and community. Freire himself argued that his ideas were in constant need of reinvention depending upon the context of their application (Hyslop-Margison & Dale, 2010, p.3). A new orientation in thinking that considers ecology and people is required in order for us to live sustainably. Freire’s work provides
us with the foundations and Bowers work provides the lens through which to reinvent Freire’s’ ideas within the current socio-historical context.

“What makes Freire’s work so important for social and pedagogical struggle at this historical juncture is that it constitutes an ethic of obligation” (McLaren and Leonod, 1993, p. 3). Through a re-examination of Freire’s banking concept of education we are able to critically evaluate the degree to which education is currently perpetuating unsustainable ways of thinking and interacting. Freire’s response to banking education is his critical pedagogy, thus in order to re-examine Freire in the context of Efs/ESD, we must examine his critical pedagogy under a new lens. Since Freire provides a well-developed critique of exploitive practices he provides us with the theoretical grounding to address issues of ecological justice as well.

Paramount to the success of an emerging paradigm for Efs/ESD, is the capacity to view reality as constructed and changeable. Freire’s notion of critical reflection, Conscientização, is particularly relevant to countering the excessive pursuit of individual self-interest that characterizes our Western society (Bowers, 1987, p. 128). Freire’s notion of critical reflection enables an individual to challenge the moral foundation of cultural beliefs systems, expose ideological agendas, and analyze ideologies hidden within the way the world is presented. In order to re-think this component of Freire’s work, to promote thinking that would support Efs/ESD, we can bring in Bowers point that when we are reflecting on cultural belief systems and ideologies, our aim cannot be purely one of deconstruction and re-naming. What we must remember is that Freire’s “ideal of the fully humanized individual who relies upon critical reflection to continually re-name the world in no way implies abandoning the mentoring relationships, direct observation, and embodies learning provided by traditional community” (McLaren, 2007, p. 102). Thus, we must ensure we utilize Freire’s critical reflection not only to create critical consciousness with the aim of transformitive
action, but also as a lens with which to examine intergenerational knowledge and traditions for their validity and role in the pursuit of sustainable futures. Thus, we can create a more balanced understanding of the role critical reflection can play, one that no only sees change as good but critically utilizes knowledge embedded in past generations to re-invent a new to further transformative action that we are seeking to achieve for EfS/ESD.

This re-thinking of critical reflection also demands of us a re-examination of how knowledge is viewed and valued. For Freire, knowledge and meaning should always be constructed by the learner, not something dictated and memorized. In this sense abstract thought and individually based knowledge developed through higher level reasoning skills of an individual could be continually privileged over traditional and intergenerational knowledge often based on concrete experience as opposed to abstract thought. This becomes problematic for EfS/ESD as purely individualistic and subjectively based knowledge will not lead to a shared understanding of what is required of a citizen in a sustainable society. Sustainability requires a view of knowledge that does not privilege one form of knowledge over another but values knowledge as it contributes to a restructuring of our world view for sustainability. The abstract form of knowledge, that is knowledge that is constructed through an individual’s critical reflection, cannot be viewed as any more relevant than knowledge gained through experience and passed on over generations. There is much to be learned and valued in knowledge and traditions of the past that is both valuable and incredibly relevant to sustainable societies. Thus, we must view knowledge construction and re-naming not as change but rather knowledge as gained through critical reflection on information and experiences that are encountered and investigated for validity. That means critically examining past and present knowledge’s with a critical consciousness that will discern the contribution or applicability of knowledge with respect to sustainability. Intergenerational knowledge and traditions also give us meaning and a feeling of belonging to a culture and purpose larger than
ourselves and thus can also led us away from the nihilism inherent in neoliberalism’s rampant individualism.

Freire was very aware of the fatalism of neoliberalism and the subsequent nihilism that denies people the chance to dream of a better world (Mayo, 2004, p. 98). The essence of Freire’s work is liberatory; in response to fatalism Freire proposes critical pedagogy with problem-posing education. Through this vision, students “develop their power to perceive critically the way they exist in the world with which and in which they find themselves; they come to see the world not as a static reality but as a reality in the process of transformation” (Freire, 1990, p. 71).

Another key component to Freirean pedagogy that must be re-thought in order to develop grounding for EfS/ESD is his notion of critical literacy. Critical literacy must not be based primarily on the ability to read and decode the written word. It is essential that critical literacy is practiced in order for individuals to understand how text conveys and imports ideological messages. As Freire states, becoming critically literate “...is intrinsically connected to an increased consciousness of one’s socio-historical conditioning and situatedness” (Hyslop-Margison & Dale, 2010, p. 154). From here we must re-think critical literacy as more than reading, we must think of literacy as encompassing the ability to decode critique and sift through all forms of communication in society. It is more important than ever for individuals to apply critical literacy skills to the multitude of media messages, advertisements, political polices and discourses as well as dialogue that is encountered daily. By understanding Freire’s critical literacy in this way, individuals can begin to think more holistically about the messages and ideologies in which they are embedded and received. Furthermore, by understanding critical literacy more dynamically, we can move to better understand the basis of traditions and intergenerational knowledge as much of these are based in dialogue and action. This mirrors Bowers notion of cultural literacy and the need to provide for
Principles for living sustainably do imply a form of ‘grand-narrative’; however this does not mean that it is undemocratic, nor that it cannot be based principally in context. EfS/ESD also demands of a philosophy a foundation that could be described as a grand narrative. Freire himself, although accused of relativism by some thinkers such as Bowers, does not abandon concepts of totality outright. Freire speaks of a universal ethic as something that “calls us out of and beyond ourselves” (Freire, 1998, p. 25). The complete abandonment of a shared narrative would “obscure real connections, causes and relationships – without a shared vision of democratic community we risk endorsing struggles in which the politics of difference collapses into new forms of separatism” (McLaren and Lenard, 1993, p. 71). In order to achieve sustainable societies there must be a shared vision that is a vision shared by humanity of the way we view ourselves in and with the world that is based on a shared desire for sustainability. “Principles for living sustainably do reflect a grand narrative for world-wide –change” (Tibury, 2002, p. 5). A philosophy based upon the democratic principles of critical pedagogy will allow for local context and thus remain democratic even with an underlying narrative. Thus, crucial to a philosophy for EfS/ESD is the need to draw upon a coherent body of ideas but resist becoming a doctrine or prescribed technique to be employed universally (Kahn, 2010, p. 21).

Another crucial component of re-thinking Freirean concepts is the critique of his work as dualistic and anthropocentric in nature. The duality of his premise of the oppressed/oppressor must be re-examined in an attempt to make the understanding of the concept less clear cut and better representative of the complexity of relationships. It is clear in the analysis in Section 2.2 that Freire did not have an inherent dualistic, nor linear view of relationships. However, inherent in the
problem of our perception of duality is our language which limits our ability to describe conditions and relationships in other ways. Subsequently, we remain within the confines of our own expressions to explain concepts. For the purpose of re-thinking Freire’s concept of oppressed/oppressor I will not seek to reject it, but rather seek to expand the concepts within it to better represent the relationships that exist in a more holistic sense and to incorporate a better understanding of how that impacts sustainability.

It becomes important to expand our notion of the oppressed to not only humans specifically, but to understand that oppression affects all aspects of our world both human and all aspects of the biosphere. Freire defines the oppressed as those who are denied personal autonomy through the imposition of a worldview upon them and thus, denying them the ability to direct their own lives. We must expand this notion to all life as well as the biosphere, by understanding that oppression is an imposition upon both living and non-living components of our world and that oppression not only constitutes the denial of autonomy, but rather the denial of the right to exist free from acts that jeopardize their existence and function. This conception of the oppressed helps to address concerns about the anthropocentric nature of Freire’s work by incorporating non-human elements into the concept, in a way it is a post-human concept of the oppressed/oppressor relationship that will support the quest for EfS/ESD.

We cannot deny that our current problem is a problem of humanism; unsustainable practices are embedded within the ideologies surrounding our Western culture. Freire’s anthropological notion of culture is based on the fact that our culture is the result of human consciousness and interactions and thus human made (McLaren, 1993, p. 51). Our pre-existing schemas in the Western world include our conceptions of nature, ecology and sustainability, which currently are modernist, humanist and neoliberal (Stables and Scott, 2001, p. 273). It is our
worldview that impacts our interactions with the world and leads to injustice both socially and environmentally. Thus, it is only a transformation of our human consciousness that will allow for a re-defining of how we view our place in the world and that will ultimately lead to interactions that are of a sustainable nature. To that end, one could say a philosophy requires a degree of humanist focus because it is humans that are causing the destruction we are now witnessing to natural systems and the increase in social injustices and thus, humans will be the basis for change. What we need to alter is not Freire’s focus on the anthropocentric nature of culture and consciousness, but to ensure that the perspectives that we transform towards are not views rooted only in a human focus. Rather, humans must re-define their view and understand our connection to the larger world which includes all aspects of the biosphere and our dependencies within it.

In Pedagogy of Freedom, Freire states “insofar as I am a conscious presence in the world, I cannot hope to escape my ethical responsibility for my action in the world” (Freire, 1998, p. 26). It is obvious that even though Freire’s work is much concerned with self-transformation, it is equally concerned with social transformation and what we must re-envision is the goal of a social transformation towards sustainable principles. To act ethically within the world is to act in such a way that will sustain all life in a just manner and even though Freire talks of emancipation and freedom, he states that there is a binding ethical responsibility to the world within which one acts. Moving into a new philosophy we must not seek justice and liberation only for humans as autonomous beings, but justice and liberation for all those exploited which includes all elements of the biosphere. Further, the social justice issues of class, race and gender “should not be treated as separate from the cultural changes that will be required if we are to limit our adverse impact on the environment;” these issues must be understood not just as social justice but in the context of ecojustice as well (Bowers and Apffel-Marges, 2005, p. 143). It is apparent in today’s neoliberal society that social injustice and oppression against humans is rooted in the exploitive practices of
capitalist structures, which means that these injustices are founded within the larger oppression of the biosphere as a whole.

This type of understanding demands a new way of understanding our place in the world and highlights the need for a new paradigm. In order for humans to transform their consciousness we must use Freire’s transformative pedagogy to create an educational philosophy that does not only promote change but changes itself in order to foster a new form of thinking about ourselves in the world. We need to move to a worldview that values and combines wisdoms embedded in cultures, a move that still values scientific investigation but also values moral and religious/spiritual positions as well (Hyslop-Margison & Dale, 2010, p. 131). We must be willing to risk, to welcome the new, just as we cannot throw out the old just because it is not new (Freire, 1998, p. 41).

In education we need a post-disciplinary concept of scholarship with an ecological view rather than mechanistic view and a move from individualism to citizenry (Hyslop-Margison & Dale, 2010, p. 131). Interdisciplinary systems thinking must replace the disciplinary focus in education in order to overcome the fragmentary and dissociated views created by specialization (Chalkley & Higgitt, 2009, p. 131). Sustainability education needs to be viewed through multiple perspectives and requires knowledge and understanding that will allow us to change and values things in a new way. We must begin to view things through connectivity, relationships and co-dependence in order to truly understand our place in the world and understand the impact of our actions in the world. This type of understanding cannot be achieved when subjects are fragmented and separated into specialties which inhibit relational thinking and foster linear thinking.

This new paradigm in education must be based upon the dynamics of living systems that embrace the interdisciplinary thinking required to understand our connection to the world. Through this paradigm the purpose of education moves from being about preparation for capitalist
employment to being about sustainability. This moves policies from seeing education as the producer of a product to the vessel of developing the capacity for a sustainable citizenry. Subsequently, practice becomes not about transmission and instruction but is participatory, contextually based, problem-posing, and relational. This also impacts curriculum, moving it from a specific goal oriented document to be implemented and measured, to curriculum as a process which can be achieved by basing it in Freire’s concept of “Praxis”. For Bowers, this foundation of curriculum in praxis must also incorporate and ecological view of curriculum which supports relational thinking. That means that curriculum is rooted in praxis, which is a cyclical and fluid process and thus not linear and fragmented as it is currently structured, which means that curriculum founded in praxis mirrors nature’s processes. To go further, Bowers wants to ensure not only that curricula are based in the same thinking and structure as nature but also that the concepts within curricula can never be viewed outside of their relationships with each other and the biosphere.

A new paradigm also requires us to radically reconsider the role of the teacher. Bowers presents the role of the teacher as a mediator which he states “will require a profoundly different conceptual orientation on the part of teachers, as well as greater knowledge of the deep cultural patterns that underlie modern and tradition centered cultures” (Bowers, 2005, p. 10). The current orientation of the teacher in the Economy of Education paradigm is that which Freire describes in his banking model of education. The teacher is the depositor of information and the student is the passive recipient of this knowledge. The notion of a mediator becomes helpful when reconceptualising the teacher within a new paradigm when we combine it with Freire’s notion of a transformative educator. By understanding the role of the teacher as a transformative mediator, we can allow teachers to engage in Freirean notions as well as lead students through not only the process of critical consciousness and emancipation, but also to work constructively with students to
evaluate and assess cultural practices and assumptions. The transformative mediator provides for students the environment and guidance necessary for them not simply to re-name the world, but to investigate the world from a critical perspective and use all knowledge and possibilities available to them, new and old, in order to transform society towards sustainable ways of knowing.

For students this means an environment that presents concepts in diverse contexts, in a collaborative atmosphere that involves their own life and cultural experiences. Communication and relationally based knowledge is based on the discovery of connections, and the investigation of perspectives and systems. The skills that are valued become communication, co-operation, decision-making, de-coding and action oriented initiatives. The emphasis Freire’s places on dialogue as a real, practical option for teachers and students, becomes of central importance as it allows for the role of transformative mediator. There can be a free exchange of beliefs, knowledge and experiences from diverse places and in a mutually constructive environment where both teacher and student autonomy is respected. It further allows for the contextual and democratic nature of education to take center stage as the teacher is mediating the students’ experiences which are rooted in their specific culture and bioregion. Furthermore, “individual’s self-concept is constituted through interaction with significant others; the individual not only acquires the socially shared knowledge, but also and understanding of who she/he is in relation to it” (Pinar, 1995, p. 274)
Chapter 4

Section 1: Concluding Thoughts

1.1 Revisiting Objectives/Goals

Within this thesis I have argued that our current unsustainable practices can only be addressed through a fundamental shift in the way we view the world and ourselves in it. I have further presented and argument that education represents our most relevant and profound way for addressing sustainability issues emerging out of our dominant Western mind-set that has led to humanity’s unsustainable practices and views. Through the analysis of current paradigms and the resulting world views I have argued for a paradigm change using Freire’s critical pedagogy as the grounding that will allow for a reorientation to education for EfS/ESD. This thesis has been a philosophical inquiry rather than an empirical one, it has been broad it its scope in order to truly understand the impact of paradigms and sustainability.

In chapter two I examined the socio-historical context of the Westernized, neoliberal paradigm and the implications this context has had on education and our relationship with the world. In chapter three, I presented a philosophical re-examination of Freire’s work by problematizing critiques offered by Bowers in the context of EfS/ESD. Through problematizing critiques on Freire’s critical pedagogy and re-thinking areas of his work in conjunction with Bowers, I presented a re-invention of Freire’s work as an essential basis for a paradigm shift to achieve EfS/ESD. This final chapter is comprised of concluding thoughts, remarks and reflections.
1.2 Reflections

If we are to truly move beyond our current disconnect with the biosphere, we must move from an Economy of Education paradigm, to an Ecology of Education paradigm. That is a paradigm that is not based on mechanistic and reductionist views of the world, but rather a paradigm that is founded in an ecological view of the world that embodies holistic and relational thinking. This is not to say that we should abandon all initiatives in EfS/ESD fields up until now such as Eco Schools, Environment Schools and Citizen Schools, but these responses remain inadequate because they remain within a system that lacks the necessary ecological thinking that they require to change our worldview. Like these, most responses have been adaptive or behaviourist in nature.

“Sustainability education as a whole needs to both mount a deeper critique of the culture of mechanism and instrumentalism that largely still informs most educational policy” (Sterling, 2010, p. ). Initiatives that continue to work within the thrall of the Economy of Education paradigm will continue to teach about sustainability as if it is yet another concept to be mastered. We must move from education about sustainability to education for sustainability which requires us to recast the paradigm within which we base education.

Freire’s critical pedagogy is central in this move to a new paradigm and worldview as his pedagogy is not simply about providing students with the opportunity to question social construction to enhance understanding, but rather to understand both its construction and their own ability to change it (Hyslop-Margison & Dale, 2010, p. 84). “The primary focus of education for Freire, thus, is questioning social reality and the problems it causes as a first step to transform the world” (Hyslop-Margison & dale, 2010, p. 86). In Freire’s critical pedagogy the existing social order is not presented as an inexorable consequence of human history, but rather a constructed context of powerful ideologies (Hyslop-Margison & Dale, p. 130). Freire’s pedagogy thus becomes essential
if we want to move to a paradigm for EfS/ESD that provides the critical awareness and transformative ability “needed not only for justice or social effectiveness, important concerns or curricular theory, but also for the achievement of true freedom, community, and sustainability of the Earth and its forms of life” (Gadotti, 2010, p. 208).

1.2 Visions of Change

One of the leading reasons for critiques of Freire’s work as incompatible with a paradigm for EfS/ESD as explored in Chapter Three, are misinterpretations of his pedagogy as well as attempts to formulate his pedagogy into a system of practice to be implemented as a technique or system. I do not want to fall prey to the same errors as stated in Chapter Three and thus I do not seek to propose a program of implementation, nor a utopian end, but rather a vision to provide a grounding, a shared vision and process upon which locally based education for EfS/ESD can evolve.

This shared vision, rooted in Freirean philosophy must lead to “the creation of educational spaces for direct interaction between students and adults where they can ‘live’ the experience of common responsibility and interdependence, care for the welfare of the whole community of life (all elements of the biosphere) and engage in intergenerational cooperation” (Savelava & Savelau & Cary, 2010, p. 262, parenthesis added). As Freire holds, we must have a shared vision in which to base education but the starting point for all learning and curricula must begin with the cultural knowledge and knowledge of the student in your educational location. The contents of the curricula in EfS/ESD must be meaningful to the student and meaningful to them because they are also meaningful to the health of the biosphere of which they are a part (Gadotti, 2010, p. 205).
EFS/ESD needs to be viewed through multiple perspectives and thus interdisciplinary systems thinking should replace the disciplinary focus (Chalky & Higgit, 2009, p. 32). Interdisciplinary thinking and meaningful curricula create a realness to what students and teachers are learning, they are no longer detached from what they are learning, but rather an active part of what they are thinking and doing and empowered by the realization they can transform the world around them. This transformative ability can be fostered not only through critical consciousness but in a pedagogical practice that provides students opportunities for collaborative efforts in solving concrete local problems that reflect global challenges (Savelava & Savelau & Cary, 2010, p. 262).

Education within a new paradigm for EFS/ESD would be based on Freirean pedagogy that creates meaningful rather than token empowerment; participation and ownership, action research opportunities, a linking of systemic and critical thinking and environmental and social action, and develop ecoliteracy, cultural literacy and political literacy in critical ways (Sterling & Huckle, 1996, p. 35). The work of thinkers such as John Portelli and Ann Vilbert and their concept of a curriculum of life which “is an approach to pedagogy which informs and gives coherence to often disparate aspects of school life” can help to break down walls between subject disciplines as well as schools and the world around them (Portelli & Vilbert, 2001, p. 15). This type of holistic thinking based on making curriculum meaningful to students is the type of pedagogical approach required in order to move forward to a paradigm that will support EFS/ESD

1.3 Final Comments

“If we agree that the direction in which the world is headed at the moment, determined as it is primarily by the beliefs and values of the Western worldview, leads to catastrophe, then that set of beliefs and values has to be consciously questioned and changed” (Clark, 1989, p. 22) What is
needed is a new vision that takes the best of the past and thrusts forward into a new way of thinking, one that is derived by a global vision but is decentralized and locally relevant, one of cultural diversity “emphasizing cooperation rather than competition, diversity rather than uniformity, social boundedness rather than self-centeredness, and sacred meaning, rather than material consumption” (Clark, 1989, p. xx).

A paradigm shift based on a re-thinking of Freire within the incorporation of aspects of Bowers work will fundamentally alter our way of viewing things and change our perspective to allow us to value things in a new way and understand our place in the world as co-dependent. Through this re-thinking, students can learn to reflect critically on their place in the world, while at the same time reflecting critically on what is valuable in culturally traditions and knowledge. They will be able to envision alternative ways of organizing society and living in and with the world that is not simply new, but a transformation of old and new ideas into an ever evolving view of the world that will allow for continued sustainability. They will be able to realize that freedom and autonomy are not absolute but both are limited and dependent upon the health of the whole and that all realms of humanness and the biosphere are not independent but intricately connected.
REFERENCES


