

Incorporating Sustainable Development into Teaching in Schools in Nigeria

AKIKIBOFORI JACOB SUNDAY

% MRS. MAGDALENE AKIKIBOFORI, NO 14 IGBUKWU STREET, D/LINE PORT HARCOURT

E-MAIL: akiks@yahoocoo.uk

ABSTRACT

The United Nations General Assembly declared the period from 2005 to 2014 as the United Nations Decade of Education for Sustainable Development. The reason for the decade is a growing concern for future generations and their ability to deal with the very real and adverse consequences of decades of environmentally 'unconscious' decisions made by their predecessors. When curricula are not focused on sustainable development, what role do teachers have in educating students to make ecologically sound decisions? This qualitative study was composed of a series of semi-structured interviews with four teacher participants at both junior secondary school and senior secondary school who all strove to teach about sustainable development in their classrooms. Six themes were identified: motivations, teaching style, and teachers' perceptions of the impact on students' learning, modeling, spirituality, and challenges to teaching about sustainable development. The teacher participants' perceptions on empowerment, action projects, student response, and assessment are also discussed.

Keywords: *Sustainable Development Education Environment, Curriculum autonomy, Earth, Modeling*

1. INTRODUCTION

The biotic environment is a complex system that is in a constant quest for equilibrium among the myriad of living entities, especially with the impact of humans. Western thought based on rational will and the desire to understand individual components utilizing linear thinking continues to be ineffective in grasping the big picture or end results of actions and reactions. What is needed is a transformed way of thinking. School curriculum can play a role in this change from that of linear modalities to systems thinking. In order to achieve desired results of a sustainable future, students must not only learn to develop and implement environmentally friendly initiatives but also understand the repercussions of said actions on the economy, society, and the environment. This involves inner transformations on the part of students where students come to recognize the need for change and develop a desire and the autonomy to create it.

I am concerned about future generations and their ability to deal with the very real and adverse consequences of decades of environmentally 'unconscious' decisions made by their predecessors. Apathy, ambivalence, ignorance, and inaction manifested by an education of packaged programs, a focus on standardized testing, and centralized curriculum are not preparing the next generation to be critical decision makers in terms of stewardship of the Earth. The core realities that I see underlying sustainable development involve interdependence, empathy, equity, personal responsibility and social justice, yet these are rarely addressed in our curricula crowded as they are with content. I see these realities as the key foundation upon which a feasible vision of a more sustainable world can be constructed. I believe these core educational values to be the foundation for Education for Sustainable Development (ESD). There is a danger that Education for Sustainable Development could be stripped down to only encompassing the simple transmission of facts and knowledge from the teacher to the student about the current state of the Earth. This is an extremely limited undertaking. Values of ethical living, morality, and justice are inherent within the knowledgebase. Therefore, these values must be consciously explored and applied through critical thinking within the presentation and creation of new information. When one feels responsible, or feels a moral obligation for protecting the environment, he or she will think carefully about how his or her actions affect the environment.

In recent history, human involvement with the Earth has had a significant impact on the Earth's resources in a manner that has impacted the sustainability of the planet (Palmer, 2010) "As the new century unfolds, human actions are affecting the environment in ways that are unprecedented, unsustainable, undesirable and unpredictable, a situation which presumably cannot be divorced from current practice in education" (Palmer, .1999, p. 379).. Palmer has pinpointed education as the tool that can and should be used to combat and address the significant negative impact humans have had on the Earth. As a response to this call and to the international attention sustainable development has been receiving in recent years, the United Nations General Assembly declared the period from 2005 to 2014 as the United Nations Decade of Education for Sustainable Development

(UNDESD). United Nations Educational, Scientific and Cultural Organization (UNESCO) consider the governments of each nation as the main agencies for facilitating and integrating a curriculum of sustainable development into schools. Their intention is for the next generation to develop the skills, values, and knowledge required to create a sustainable future through empowerment of people of all ages in all countries.

The purpose of this study is to explore the practices and undertakings of selected Senior Secondary School in Rivers State teachers as they teach about sustainable development in their classrooms examine teachers' perspectives on what some of their practices are that are having a positive impact on student learning.

1. In what ways do teachers integrate sustainable development into their teaching?
 - a) What concepts are they teaching their students about sustainable development?
 - b) Do the teachers teach within existing curricula or in extra-curricular activities?
2. In what ways do these teachers address sustainable development concepts?
3. In what ways do these teachers see these concepts impacting their students?
 - a) What are teachers doing that takes it beyond the delivery of information and uses sustainable development as a transformative tool?
4. Why are these teachers so committed to Education for Sustainable Development?
 - a) In what ways do these teachers incorporate sustainable development practices into their lives?
 - b) What motivates teachers to teach about sustainable development?

1. LITERATURE REVIEW

The latter half of the twentieth century saw an unprecedented human population explosion and with the immense impact of the technological boom, came the dawn of environmental education. According to Smyth (2005), the thrust for environmental education grew out of photographs of the Earth suspended in space since this was the first time some people were awakened to the finite resources available to humankind and realized the limits of their planet and its natural resources.

The first time the concept of sustainable development was put forward was in the World Conservation Strategy in (1980). Palmer (1999) summarized the definition of sustainable development used at this forum as "the present development of available resources without compromising the ability of future generations to meet their needs" (p. 60). The conclusion of the World Conservation Strategy was that conservation and development are intrinsically linked and, therefore, conservation principles should be integrated with all future plans for economic development. A criticism of the Strategy is that it took too simplistic an aim at the link between human development and conservation Palme (2010). The focus on ecological sustainability did not investigate economic sustainability or sufficiently link these two aspects.

The World Commission on Environment and Development (WCED) was established in (1983). This commission did a vast amount of research over three years. Their final report, The Brundtland Report (1987), highlighted three critical components to sustainable development: environmental protection, economic growth, and social equity. A key finding was that by gradually adapting the way in which we develop and use new technologies, the environment can be conserved and our resources sustained (WCED, 1987). The Report gave specific recommendations for certain priority areas related to the reorganization of government and the creation of new organizations to initiate and facilitate change. A number of principles were articulated in this report: respect for Earth and all life, protecting and restoring ecological integrity, eradicating poverty, and ensuring that economic activities at all levels promote equitable and sustainable human development (Grant & Littlejohn, 2004/2005). This report also highlighted the role that education plays in moving towards a sustainable future (WCED).

In 1992 many of the world's leaders met in Rio de Janeiro to sign Agenda 21 at the Earth Summit. This international plan was a call to action to promote sustainable development at international, national, and local levels. It was a critical milestone in the history of sustainable development as it was the world's largest environmental gathering. Ten years later, in 2002, the World Summit for Sustainable Development in Johannesburg was held. Heads of government from all over the world reconvened to assess the progress made on sustainable development since the Earth Summit in (1992) (UNEP, 1992). Another international conference was held in 2005 and as a response to the international attention Education for Sustainable Development was receiving, as mentioned earlier, the United Nations General Assembly declared the period from 2005 to 2014 as the United Nations Decade of Education for Sustainable Development.

The United Nations Decade of Education for Sustainable Development challenges teachers to implement Sustainable Development practices and philosophies in their classrooms as well as calling for curricular renewal. As a result, in the last few years, there has been a surge of research related to Education for Sustainable Development. Adesina (2009) states that teaching about sustainable development is to “blend passion with process” (p. x). I believe teachers generally do not accept new pedagogical frameworks not mandated by their school ministries, especially if they are not passionately committed to the new philosophy. I also believe that those who find ways and time to teach with a sustainable development framework do so because they find it to be personally valuable and meaningful.

Okeke (2010) questions those who are choosing not to teach about sustainable development suggesting that teachers should be able to answer questions about what they are doing to prepare students for their contribution to the eradication of various global problems; such as, human population explosion, poverty, disease, civil disruption, unequal distribution of resources, treatment of people who resist measures taken to ensure sustainable living, and for the impact media has as the main source of environmental information. Okeke believes these are current issues that need to be tackled and debated in the educational system. There is a risk students may become overwhelmed with a feeling of hopelessness if teachers are not careful in their pedagogical decisions in how they present these problems to their class. Okeke does not take this into account in his argument. The size of these problems can be disconcerting for some teachers and some may retreat into more comfortable areas and activities. Nonetheless, I believe the sheer magnitude of these issues can be overcome if teachers can promote critical and creative thinking and investigate the values that underlie teaching and learning about sustainable development in striving to actively engage students in action competence. From my review of the literature, I have identified three major themes in reference to sustainable development. These themes are: action competence, modeling sustainable practices, and the promotion of values in education.

2.1 ACTION COMPETENCE.

A number of studies have described action competence as an effective method in teaching students about sustainable development Jensen & Schnack, (1997); Barrett, (2006); Lundegard & Wickman, (2007). Action implies a set of intentional behaviours and competence implies being ready, willing, and able to inspire change Jensen & Schnack, (1997). Enaohwo (2011) described action competence in the following way: Action competence aims to promote pupils’ readiness and abilities to concern themselves with environmental issues in a democratic manner, by developing their own criteria for decision-making and behaviour, and to prevent pupils from adopting patterns of thinking without reflection. (pp. 45).

Teacher’s role in action competence is facilitating and encouraging students to develop the desire and skills to take positive action in promoting sustainable development. Action competence goes beyond simply educating students to place their juice boxes in the correct container. That is an act with no opportunity for critical thinking on the students’ part. For it to be deemed action competence students need to have the ability to point out conflicts that underlie environmental problems before they can engage in critical action Lundegard & Wickman, (2007). The crucial aspect of these actions is not only in the actions themselves but also in what students learn from participating in these actions and from deciding to take action in the first place. “Taking action is often not part of the schooling process” (Barrett, 2006, p 503) but a necessary goal for Education for Sustainable Development.

Where Yesufu (2012) differ from other researchers is that they do not believe the answer to environmental problems lies within seeking quantitative changes, such as using less electricity. Qualitative changes must also come into play. This means that students must move beyond simply repeating actions that promote environmental consciousness and develop a more sophisticated framework of their thinking and acting. Therefore, the objective of environmental education “is to make students capable of envisioning alternative ways of development and to be able to participate in acting according to these objectives” (p. 472).

Action competence is directly linked to the empowerment of students Jensen & Schnack, (1997). To effectively teach about sustainable development involves a sense of empowerment in students Lundegard & Wickman, (2007). Students need to choose what elements of sustainability are important for their lives now and in the future. They need to take ownership of an action project and teachers need to support students in this endeavor.

2.2 MODELING SUSTAINABLE PRACTICES.

Inconsistency between teaching and the practice or culture of schools confuses students Higgs & McMillan, (2006). “Although advice is available to schools on incorporating sustainability into their curricula and on greening their facilities, there is limited concrete guidance on how to shape an entire school community that

models sustainability through its systems and actions” (p. 40). These points to a significant gap in the literature begging the question how can teachers and schools be living models for sustainable development? Some examples are provided from a qualitative study conducted by Higgs and McMillan (2006) on how teachers can model sustainable development: driving a hybrid, using other more energy efficient modes of transportation to and from work, eating locally grown produce, decreasing consumerism, participating in community service projects, composting and recycling, reducing waste, conserving energy, fostering democratic classroom environments, using restorative conflict-resolution, and encouraging opinion sharing. According to Higgs and McMillan, when students observe their teachers engaging in such actions, students are more likely to adopt them. Through these actions teachers can work on making their school cultures supportive of sustainability regardless of what little influence they may have on the culture students are immersed in outside of school. “If students learn through direct and continual observation that the people and institutions they respect engage in sustainable practices, rather than simply being told of their value, they may be more likely to adopt such behaviours” Higgs & McMillan, (2006, p. 50). There needs to be consistency between what is suggested and what is enacted. A shortcoming of the article by Higgs and McMillan is that they do not extend this idea to the extent that other researchers do in that these activities are passive in nature.

2.3 PROMOTING VALUES IN EDUCATION.

Some researchers have pointed to the connection between teaching about values and teaching about sustainable development. Stevenson (2007b) explains “contemporary environmental education has the revolutionary purpose of transforming the values that underlie our decision making, from the present ones which aid and abet environmental (and human) degradation to those which support a sustainable planet in which all people live with human dignity” (p. 145). Smyth (2005) would agree with the hope that the emphasis on environmental awareness is left behind and values of responsibility, competence, and citizenship are discussed in terms of their ecological significance.

Nduka (1981) defines a value as a “personal belief that an individual or society considers to be worthwhile” and a moral as “the particular code of conduct used to demonstrate that belief” (p. 266). The socialization process determines our value system. The link between Education for Sustainable Development and values education has also been emphasized by UNESCO (2007’): ESD is fundamentally about values, with respect at the centre: respect for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit. Education enables us to understand ourselves and others and our links with the wider natural and social environment, and this understanding serves as a durable basis for building respect. Along with a sense of justice, responsibility, exploration and dialogue, ESD aims to move us to adopting behaviours and practices which enable all to live a full life without being deprived of basics. Teaching and learning are both activities that are deeply rooted in personal values and beliefs (Hart, 2003). Teachers who are currently teaching about sustainable development do so for a number of reasons. In Hart’s (2003) study he found the reasons include a love of nature and the outdoors, the influence of parents or teachers, concern for children entrusted in their care, teachers concerned for their own children, and some other personal values compel them to do so. “Environmental education rhetoric is becoming familiar to teachers and teacher educators only peripherally, and their own beliefs, motivation, and experience are what drive their practice. Perhaps environmental education exists as much of personal practical theory as anything else” (Hart, 2003, pp. 25-26).

Teachers often have their own theories about education, including environmental education. Teachers act as both subjects and agents of change as they make decisions that reflect their understanding of the practical and conceptual implications of their practice (Stevenson, 2007a). Teachers’ practices draw from their beliefs, assumptions, and values in the world around them. Teachers create their own meaning of each new reform and each new theory that comes to the forefront in educational research.

Palmer and Birch (2003) explain that Education for Sustainable Development is fundamentally about encouraging individuals to change their behaviours, attitudes, and beliefs. Hart (2003) would agree, suggesting that what is needed is a critical pedagogy of the environment, to raise awareness, and bring about personal and social transformation. Hart sees this as the ultimate aim of Environmental Education.

3. METHODOLOGY

Qualitative research enables investigation to enter into the human perspective. It gives access to a social reality that is continuously constructed by the participants in it. Qualitative research lends itself to gaining a more holistic perspective on humans’ perceptions, beliefs, and ideals within the social context that they inhabit. I

chose interviews as the method for developing a perspective on the teachers' perceptions. Four teachers were chosen so that I could have in-depth conversations with them to gain a thorough understanding of their practices. Two of the teachers were senior Secondary school teachers and two taught junior students.

Gall et al. (2007) suggested there should be a purposeful sampling for qualitative research. In purposeful sampling, participants are selected based on their specific qualities which make them an appropriate choice for the study. I interviewed four teachers, to gain four perspectives. The primary sources of data for this study were a series of semi-structured interviews with the four teacher participants. After locating the names of teachers who were teaching about sustainable development, a request was made to them, through contact by email, inviting them to take part in this study. The four teachers who consented were informed in writing of the purposes of the study and gave their informed and written consent before the study began. These teacher participants were first sent a preliminary set of questions via email and participants responded in like manner. From these first responses I tailored the interview questions to each participant. Participants were interviewed and audio taped on an individual basis at a location convenient to them. Two were conducted at the researcher's office, one was at the participant's school, and one was at the participant's home. After these initial taped interviews, I transcribed the conversations, then looked for themes by analyzing what the four teacher participants said, using my research questions as a guide. Three of the teachers also granted me access to their classroom blogs, these were available just to their students, but provided another avenue to explore the teacher participants' teaching. After examining the transcripts, I identified further areas to discuss and explore with the participants. I also identified connections and themes between the conversations. Teacher participants were contacted subsequent times by email, phone, or in-person to expand or clarify what they said.

4. DISCUSSION AND ANALYSIS OF THEMES

4.1 THEME ONE: MOTIVATIONS

➤ Discussion of theme one.

All four teacher participants indicated the influence of their upbringing and families as instigating their interest in sustainable development. For each participant, part of this motivation was a love of the outdoors and a close tie to the Earth. Hart (2003) found similar motivations in the teachers in his study. His participants' motivations were found to be a love of nature and the outdoors, the influence of parents or other family members, and deeply held personal values. The conversations with the four teachers confirmed Hart's findings as many of these reasons were manifested in the teacher participants' responses. Esuiku, Ute, and Sharon specifically mentioned their family of origin as providing the foundation for a love of nature and the outdoors. All teacher participants mentioned that spending time outdoors was something that they valued throughout their lives. Ute, Sharon spoke about family time spent at their families' hut and farm, respectively. These two locales are very different from one another but both instilled a love of nature. For Ute, this love was of isolated forest and clear Andoni River. For Sharon, this love was of open spaces and sparse populations.

Esuiku and Kevin shared a similar motivation for teaching about sustainable development in their classrooms. Both teachers possessed a passion for sustainability that greatly impacted their life choices. Similarly, Ute and Sharon also shared a motivation for teaching about sustainable development. For them, their motivation was tied to their spirituality.

Stevenson (2007a) wrote of the connection between what teacher's value and what they teach. Hart (2003) agreed that teachers' motivations and beliefs enlivened their practice. This was evident in Esuiku and Kevin's motivations. Both teachers were deeply committed to sustainable development; so much so that they each moved into teaching later in life in order to promote sustainability to students. Similarly, Ute and Sharon were motivated by their deep commitment and understanding of their relationships with God. For both pairs of teachers their personally held beliefs influenced the message in their teaching. The idea of spirituality as a motivation was not a part of my original research questions or literature review. This will be explored further in theme five.

With urban centers growing rapidly and the depopulation of rural areas in Rivers State. I wonder if young people today are exposed to natural environments with the regularity of previous generations. I view exposure and involvement in natural settings as a precursor for wanting to preserve the Earth. How could someone feel a desire to preserve something when they never had the opportunity to experience its beauty? This question in itself could

be the basis for another study. If our students are not exposed to natural environments, could they have an authentic interest in sustainability?

4.2 THEME TWO: TEACHING STYLE

➤ *Philosophy on teaching and student engagement.*

In addition to teaching about sustainable development, all four teacher participants were passionate teachers who cared deeply about teaching, their students, and the environment. These teachers were reflective practitioners as they reflected on their practice and adapted their methods to meet the needs and interest of students. They all believed that how students engaged in the learning was paramount in the impact on students' lives. A good example of this view on student engagement was seen in Esuiku's approach in making the work as engaging as possible. "I try and make it as fun as possible, because the projects are handled by the students who are eager to participate. However, there are times when students need a little nudge and I just tell them that this project is part of their mark and that it could be worse, they could write notes instead".

Esuiku supported a hands-on philosophy in all subject areas. He wanted his students to experience ideas and activities that they would otherwise not have while learning what was required in the school curriculum. Esuiku's approach to teaching was with the hope of creating positive memories. He explained that the activities students remembered were the ones that were out of the ordinary. For example, building the greenhouse, while learning how to use a hammer and a screwdriver, were memories that he hoped his students would have for the rest of their lives.

Kevin was convinced that the work had to be meaningful to students for them to be fully engaged in the learning. He found that when students chose their own projects, they were encouraged to take on larger initiatives than if their teacher had simply assigned each student a topic. Students chose projects that had meaning in their own lives. An example of this was the student who noticed his gym clothes were made up of a cotton blend when they could have been made from a more environmentally friendly fabric: bamboo cotton. He identified a more sustainable choice for the school; felt it was important to him, so he took action.

Ute's philosophy on teaching was similar to Kevin's in that he felt that projects and assignments needed to be meaningful to his students. He had to encourage them to see the importance their efforts had right in their school. Ute encouraged them to be involved in the decision-making process through their involvement in environmental projects at school where such involvement led to many of their recycling campaigns. It was the students' initiatives that led many of their recycling campaigns.

Like Esuiku Sharon believed strongly that learning is grounded in experience and she attempted to bring her students into the experiential realm as much as possible during her classes. This was achieved through many out-of-school excursions. Other than making learning as experiential as possible Sharon also believed that teachers needed to "get to the heart of a kid" in order to inspire students to want to make changes in their lifestyles. This was at the center of her beliefs on student engagement. In order to reach many high school students, Sharon felt that teachers must expose students to extraordinary experiences. This was similar to Esuiku's approach to teaching in that both of these teachers wanted to create memories for their students of them making positive contributions to their school and to their community.

➤ *Pillars of sustainable development.*

The three pillars of sustainable development are: environment, social justice, and economics. Each teacher participant focused on those pillars to varying extents. Sharon focused on social justice in her classroom, especially how it related to human relationships and Christianity. Social justice became such a major focus that she was asked to create a class solely on that topic. In the social justice course, environmental issues, such as global warming, were also included but to a lesser extent. Sharon pointed out that two challenges facing the world needed to be examined:

One of them is the crisis surrounding food. And that goes along with how we teach about our treatment of the Earth. I'm talking about agriculture, pesticides, watersheds, and climate change. The other thing, the most important thing, is simply protecting the Earth. It's not an option any more whether we do or do not protect what is left. Yet, it seems like we aren't

doing much in terms of teaching the next generation where their responsibility lies on this matter.

Sharon believed that these were two important concepts that needed to be introduced and explored with students. Whereas Sharon seemed to teach mainly about social justice, Kevin focused almost solely on environmental concerns. He wished to raise awareness among his students that they had the ability to create positive change in their community. The topics broached in Kevin's class were focused mostly on alternative energy sources but there was also a great amount of discussion on living sustainable lifestyles. As mentioned earlier, he was the teacher leader of the Sustainability Club. Interestingly, there was a Social Justice Club already established at his school when one of his students initiated the Sustainability Club. Many of the students were members of both clubs. When asked why the two clubs did not merge, Kevin replied that the students were adamant about keeping the clubs separate. Kevin explained that the difference between the two clubs was that the Sustainability Club was about taking action to protect the environment while the Social Justice Club was about taking action to protect people. Kevin wondered if his students were making the connections between the two pillars of environment and social justice. He also wondered if they could not see the connection with the third pillar of the interdependence of the economy, society, and the environment as it related to projects both clubs initiated.

Ute seemed to bridge the two areas in his classroom. His students were involved in many initiatives in their own school and community to raise environmental awareness. He integrated the environmental units he taught with units on power and change in his social studies course. Also, Ute focused on these topics from a Christian perspective. In addition, Ute also brought social justice topics in through the discussion of illiteracy, ethnicity poverty. "Sustainability is really a social justice issue," he explained. He strove to make the relationships between the environment and social justice apparent for his students.

Esuiku also seemed to bridge the two areas with his focus on food production, supply, and distribution. He also led discussions on consumerism with his students. We live in a society that tells us buy, buy, buy without any thought to the consequences it may bring. I have many students who always talk about buying the latest video game or having the latest cell phone but their parents cannot even afford to buy them lunch. The pressure to have the latest gadgets is incredible. I do not talk about politics in class but I do talk about having common sense and using that common sense when it comes to the things around them. Now that I have also incorporated First Nations content into my lessons it has become even easier to teach about sustainable development. One of the primary beliefs is that one only takes what is needed without harming or exploiting others or the Earth. The umbrella term 'sustainable development' included many topics. Teacher participants used the topics they were most familiar with and most passionate about in their class discussions and activities. When the teacher possessed enthusiasm for a particular subject, students noticed, and would become more involved with the subject matter.

➤ ***Extraordinary efforts.***

The four teacher participants all demonstrated great passion as they undertook extraordinary efforts to teach about sustainable development concepts. Since sustainable development did not appear in the provincial curriculum and was not mandated by their school division, these teachers took it upon themselves to incorporate sustainable development into their classes. They wanted to inspire students to want to make positive contributions to their schools and communities out of their own belief that it was important. Another common trait was that all teachers were reflective practitioners in that they adjusted their teaching to meet the needs of their students.

Esuiku's efforts were a good example of a teacher going beyond what was expected to engage students in the learning. He initiated projects unlike any others that occurred in his school division. Enabling his senior secondary school students to construct a greenhouse and grow vegetables engaged them far beyond the walls of the classroom and beyond the pages of a textbook. His class projects did more than simply be the medium for learning; they became both the medium and the message. Esuiku's students began to understand that they were capable of great acts and of creating real change. His projects were not superficial, but rather they meaningfully engaged students in the learning. The responsibility they took for their projects and the pride they felt in their work was a testament to Esuiku's great ability to provide meaningful learning opportunities for students. The sustainability projects that Kevin had at first made mandatory, and later made optional, were a movement toward incorporating environmental awareness into the senior secondary schools. In the junior secondary schools, it's just all over the place. But it goes along with my philosophy that we just give up on the whole citizenship education when we get to the secondary schools. We drop all these things and we just teach our subject areas.

Kevin felt that teaching students to be productive, responsible citizens was something that was not taught beyond elementary school. This was what distinguished Kevin from other teachers. He felt passionately about sustainable development and therefore incorporated this into teaching. He also implemented the Sustainability Club, despite receiving no credit for it as an extra-curricular duty. This further demonstrated his commitment to his students and to encourage building environmental awareness in schools.

Ute also took extraordinary measures to teach his students about sustainable development. By involving his whole school in the initiatives and campaigns, he took his involvement far beyond the other schools involved with the program. He created multimedia presentations that highlighted ways to live a more sustainable life and used a mixture of video, dance, and music to put forth his message. The creation of these presentations was no small undertaking and captured the interest and attention of students, reflecting his strong commitment.

For Sharon, her extraordinary efforts lay in her commitment to social justice and in the consistency in which she maintained interest in it over the years. This was typified by her organization of a group of students to Abuja to experience what life was like in a Capital City. It was a profound experience and a life-altering trip for the students and teachers involved.

All of the teacher participants spend extra time at their schools and with their students. Esuiku, for example, said, *"I'm at school every Saturday and Sunday. I'm here and I love it! Just ask my wife; I spend too much time here."* During my conversation with Ute the alarm on his watch went off. He explained that it went off each day at 5:30 to remind him that he needed to start packing up his bags to go home. Apparently he would lose track of time after school and this was a way for his wife to ensure he would get home at a reasonable time. Kevin mentioned that he would be online at a certain time each night so his students could email or instant message him if they had any questions about one of the readings or an assignment. All of these extra efforts allowed students to have greater access to their teachers and showed the commitment each of these teachers had to their students. These teachers were selected on the basis that they were most likely making extraordinary efforts in their classrooms. They were recommended because they were doing interesting and important things in the area of Education for Sustainable Development and the research confirms this choice.

➤ ***Student assessment.***

All four of the teacher participants spoke about allocating marks for projects or assignments as a motivational tool in their classes. However, there was a split in how marks were perceived between the senior secondary school and junior secondary school teachers in my study.

Esuiku and Ute both taught in Junior Secondary schools. For those students who needed some additional encouragement to pick up a hammer or weed a garden; Esuiku would gently remind them that their participation in all the projects were part of their mark. He utilized an interdisciplinary approach; thereby, trying to integrate as many subjects as possible into each project. The projects completed by Ute's students were completed outside curricular areas. Ute's students were less influenced by marks since many of their projects were implemented simply to help their school community become more environmentally friendly instead of built into a particular subject. The projects were not part of any one particular subject area but as a class initiative instituted for the betterment of the school.

Kevin and Sharon, who both taught in senior secondary school, found that students were highly motivated by grades. This was not surprising as students' marks factored into scholarships and acceptance into post-secondary school. Both of these teacher participants assigned a major assignment connected to sustainability. Kevin's students conducted an action project that would effect change in their school or community. Sharon's students had to create a portfolio of information and reflection on various sustainable development topics. Both of these teachers factored those assignments as part of the final grade in their courses. Providing feedback on students' projects was also mentioned by both teachers as effective motivators for student achievement, when students were aware of the progress they made and had some teacher input on that progress, students were better equipped to complete projects of better quality. Kevin included milestone assignments to help track student progress. Students were rewarded with marks for making progress on their project. Sharon specifically pointed out that she would not have used marks if it were not a requirement for her school division.

Sharon believed that students' imaginations have been suppressed by the school system. Students do not generally get the option of investigating topics of interest to them. If a topic was not in the curriculum, it was not examined. Sharon also believed that there was an underlying sense that students had to learn content in order to pass a test at the end of the unit or the end of the term. This notion created the connection that the learning was taking place for the sole purpose of advancement. If tests were taken out of the picture in this model, what would be the motivation to learn anything? Sharon said that she always started her classes with asking students what they were curious about and what they wanted to know. While she did find that marks motivated her students she wished to move to a system where no grades would be given. She favoured a system of formative assessment where student work was talked about and commented on throughout the process instead of solely at the end of an assignment.

➤ *Discussion of theme two.*

The teaching style of the four teacher participants was discussed in relation to four areas: their philosophy on teaching and student engagement, pillars of sustainable development, extraordinary efforts, and student assessment. Teaching about sustainable development was a part of what all teacher participants believed to be an important part of the educational process.

Smyth (2005) suggested that teachers prepare students to contribute towards the eradication of social and environmental problems. He proposed that issues such as the unequal distribution of resources, global warming, poverty, and disease, should be debated within the educational system. O'Sullivan (1999) agrees that teachers hold a responsibility for teaching students about their role in the world:

As educators, we have responsibilities for forging a broad educational belief system that involves the cultivation of awe and wonder of the earth, assisting students in their process of meaning making, creation of metaphors and worldviews that nourish our capacity to live with and in the world, development of attitudes that allow us to act on wrongs we see in the world, and the ability to act responsibly on issues of justice and equity, and the celebration of diversity. (p.23). To varying degrees each of the teachers discussed incorporating the pillars of environment, social justice, and economics into their classroom. Sharon focused mainly on social justice and to a much lesser extent, the environment. Kevin focused mainly on the environment and very little on social Justice. Esuiku and Ute were somewhere in the middle. The third pillar of sustainable development, economic development, was discussed to a much lesser extent in all teacher participants' classrooms simply because they were less familiar with the concept.

Each teacher in some way addressed sustainable development in both local and global contexts, the dissonance between children's perceptions of local actions and global problems has been examined by Bonnet and Williams (2009). Students rated local social and environmental problems as less serious than distant global problems. The connections between local action and global effects did not appear to be realized for students, Bonnet and Williams argued that this results in a type of powerlessness on the part of the student that in turn can result in a lessened interest in environmental issues. While their study focused solely on junior secondary school, I believe the same disconnect could be true for Senior Secondary school students. Sharon took care to expose her senior secondary school students to both local and global problems through numerous field trips to local agencies who work for justice in local communities; in addition, global issues were also explored.

Harris (2008) found that effective teaching was linked to teachers reflecting on their practice, the use of enquiry in their classrooms, and continuous professional development and growth. Harris reviewed the literature on teacher effectiveness and organized the findings into three perspectives. The first was related to teaching skills and in relation to student achievement. The second perspective was on distinct teaching approaches in teachers' pedagogical decision-making. The third perspective was that of artistry or the creative side of teaching. The third perspective was the one that I found related the most to the teacher participants in this study. This perspective relates to the creative and personal nature of teaching. The relationship with students and the importance of reflective practice were at the foundation of this theme. All four teacher participants reflected on their practice and attempted to build good relationships with their students. The extraordinary efforts that Esuiku, Kevin, Ute and Sharon have made in raising awareness of issues and by incorporating teaching about sustainable development provide examples of how sustainable development topics could be raised in schools. All four are effective teachers in part due to the extraordinary efforts made in their classrooms. Student assessment was the last sub-area discussed in relation to teaching style. All four teacher participants, especially the senior secondary school teachers, mentioned that grades could be used as a motivating tool for students as they completed action projects. According to Kohn (1994), grades do not serve this purpose. Sharon mentioned that she would rather never give a grade on a student's assignment. She would agree with Kohn (1999) that grades served little purpose in terms of motivation and achievement of students. Kohn offered many reasons why teachers should move to a

system of assessment that does not involve a letter or number grade, including the idea that grades distort the curriculum by isolating it into many separate facts instead of students coming to realize the interconnection between ideas. Sharon claimed to use a very interdisciplinary approach to her teaching and this seemed substantiated by the nature of her social justice course; a combination of Christian ethics and psychology courses. Kohn suggested teacher assessment through comments or, better yet, interviews with individual students. Sharon said that if it were not mandated by her school she would never assign a number grade to any assignment. She strongly believed in the benefit of formative assessment.

Both Kevin and Sharon discussed the use of feedback on major assignments as a motivator for students as an effective assessment practice. Wormeli (2006) suggests increasing the amount of formative assessment in middle years and high school classrooms, instead of spending a lot of energy creating summative assessments. Summative assessments are post-learning experiences. "Real learning of both the topic and personal responsibility comes from specific, timely, and frequent feedback to students during the learning, not after the learning". (Wormeli, p. 24).

4.3 THEME THREE: IMPACT ON STUDENT LEARNING

➤ Empowerment.

As the teacher participants reflected on their practice, they all spoke about what they felt was the impact on students' lives. As our conversations progressed, empowerment became a key idea in that the teachers claimed to guide, empower, and enable students to take on action projects related to sustainable development. All four teacher participants indicated that students taking ownership of sustainable development projects were critical in students' learning experiences. All of the participants described their role as guiding and empowering students to take on projects that were meaningful in their own lives.

Perhaps the best example of this was found in the language Esuiku used when discussing his class' projects. While explaining the compost bin his students constructed, he stated, "It's about empowerment. I didn't do anything. All I did was cut the materials. They nailed it. They hammered it. They did everything. It was their project; not mine." Esuiku further explained that he would constantly remind his students that they were the ones who were making the difference and that they were the ones who were making positive contributions to their school community. He wanted them to know that they were responsible for doing their best and without their participation their goals would never have been achieved. This kind of encouragement was successful in fostering a sense of responsibility and convincing students that they had the ability to take on new projects. The language he used with them was consistent. He reminded them on a regular basis that the projects they completed were "theirs" not his.

Growing vegetables in both the indoor garden and outdoor beds provided Esuiku with an effective educational tool for his students to understand food production. At first some of his students asked him if they could grow magarine in their gardens. Some students had limited knowledge of what was grown and what was manufactured or processed. Esuiku wanted his students to understand what could be grown in the area and that they had the ability to grow their food themselves. "It's that whole empowerment thing. I want them to know they can do it. It doesn't take that much. Some pots, some soil, and a lot of love."

Another way Esuiku empowered his students was through a website sponsored by the United Nations. This website allowed students to answer questions which, if answered correctly, would lead to sponsors donating a set number of grains of rice to children in developing nations. His students would ask him whenever they had spare moments if they could visit the website to see how many grains of rice could get donated that day. As a result of this, Esuiku's students felt that they were contributing to the solution of world hunger. Esuiku believed this was an empowering experience for them.

Considering the outdoor location of the compost bin and greenhouse I asked Esuiku if there had been any vandalism on any of the projects. His response was that the projects had been left intact. He constantly reminded students that what they built belonged to them. They needed to take ownership of it and they needed to be responsible for it. He believed that the word got out in the community and the greenhouse and gardens became somewhat protected. "If it gets tagged, we'll paint over it. You'd think that someone would come and take a hammer to it but so far nothing. Nothing." It could be speculated as to other reasons why the greenhouse, gardens, and compost bin had not been vandalized, but Esuiku felt that it was due to students' ownership in the projects.

Ute found that students felt empowered to receive recognition for their work. His school won a provincial waste minimization award, as well as a video production contest for a video they produced on ethnicity. They also entered other environmental challenges for junior secondary students which Ute found online; for example, the Ekokids Challenge which provided prizes for organizations and schools that take on environmental initiatives. For his students, entrance into these contests was confirmation that the changes they were making in their lifestyles and in their school were changes that were valued in society. It helped foster the sense that they were actually making a difference. His junior secondary students wanted to know that what they are doing matters.

Ute believed that the existence of these contests helped his students feel that way. The two senior secondary school teachers, Kevin and Sharon, felt students were empowered when they were given choice in the projects they completed.

➤ ***Education as a transformative experience.***

The teachers in this study mentioned a desire to want to have a lasting impact on their students. They wanted the exposure their students had to new ideas to impact their choices. For example, Ute hoped that his students would continue to be vigilant about recycling and reducing the amount of waste that they created throughout their lives. Sharon hoped her students would continue to develop their social conscience and that it would affect the things that they consumed and purchased in the future. In their teaching, Esuiku and Sharon enacted what occurs within action competence models. Esuiku discussed the root problem in reducing litter as he discussed consumerism with his students. Meanwhile, Sharon focused on social justice issues in her class; thereby, also addressing the root of this problem in a different venue. Kevin and Ute hoped that their students' action projects would have a transformative effect on their students. Both of these teacher participants focused on specific action projects within their school which could lead their students to making more sustainable choices. The effect on students' understanding of the interrelationship between society, economics, and the environment was not evident from our conversations. Kevin and Ute wanted the projects to make obvious changes in their schools so an example could be set for other students.

➤ ***Student Response: Teacher's Understandings***

Esuiku shared a story of a student who had gotten into serious trouble at school which involved some property damage. This student was faced with disciplinary action; yet he showed little remorse. During class time, he was extremely disruptive and had great difficulty focusing. This student was also cognitively challenged to the extent that, he did not possess basic literacy skills. Esuiku knew he had to convince this child to become involved in the building projects or he would serve as a distraction, at best, and a danger, at worst, to other students. Esuiku handed this challenging student a paintbrush and was astonished with the result. He did a phenomenal job painting the greenhouse and he even seemed to enjoy it. When a television reporter came to ask Esuiku's class about the project and why they were doing so much extra work, this student matter of - factly replied that he was painting because the greenhouse was his; thereby, exhibiting immense pride in his work.

After viewing a video regarding the damage plastic bags cause to animals and their habitats, another of Esuiku's students was compelled to write a letter to the Port Harcourt Mayor about the use of plastic bags. At this student's own home, he was saving plastic bags for his parents to reuse for groceries. These actions were surprising for Esuiku because he referred to this student as "*the last person to try anything. The last person to start anything.*" These are two examples of students who though generally not inclined to participate in regular classroom activities, were happily involved Esuiku's class' projects. Among other realities, Esuiku's enthusiasm is very likely one aspect of their learning experience that motivated these students. Perhaps they were also impacted by the stories and videos regarding environmental degradation and they wanted to be part of the solution.

When asked how his students have responded to the projects embarked on in his class, Esuiku replied:

They love it! They don't know it but they are learning from all we do. Whether it is journal writing, math, science, or just good old fashioned responsibility, they are having fun and learning. A few have also changed their habits about throwing away food scraps in the garbage bin or buying junk food with lots of packaging. They now know how that will all end up in the city landfill.

Kevin also noticed positive responses from his students. For example, when the new combined course, 'Physemistry' was offered to students, many were interested. In total, fifty-eight students enrolled during the first year which necessitated offering the class in both terms. The content of the course was based around a theme of sustainable development. It was a two-period class and provided students with a credit for both chemistry and physics. Those students who enrolled knew that for two periods each day they would be immersed in sustainability topics as they related to physics and chemistry. As mentioned earlier, in terms of Kevin's sustainability action projects, some of Kevin's students took great initiative in the assignments while others did the minimum work required. It should be noted that this would be typical of any random grouping of students assigned with a major task in Kevin's class. Kevin thought that he received better quality assignments when the sustainability action project was a required part of the course instead of being optional. At the time of the interview, he was considering placing it as a requirement once again.

The majority of Ute's students embraced environmental initiatives suggested by their teacher. During his first year involvement, with Ute felt that twenty-two of his twenty-five students really embraced the program. He mentioned that he tried to encourage some of his students to become the leaders of the projects and have his students be the messengers for their environmentally friendly messages.

Ute mentioned that there were a few students who did not embrace the program as he had hoped. It appeared that recycling was emphasized to the point that a few of his students seemed to rebel against it. Ute figured that they were tired of hearing about what could be recycled and of the daily garbage inspections to check for misplaced recyclable items.

[

I think I just got frustrated. When we started the program I would explain where everything goes and after a couple of weeks there would be juice boxes in the garbage can. It would really annoy me and I'd remind my class over and over. I think that they realized that it frustrated me and they kind of played on that.

Ute admitted that he did not approach teaching his students about recycling in the best way that year; therefore, he changed his approach the following year. He explained that it was impossible to force students into recycling but that they had to understand why it was important and they needed to feel that what they did made a difference. Later, when he found a misplaced juice box, his approach was more casual and he would reinforce that they were doing a good job and ask for a volunteer to put it into the correct container. Ute found that patience and encouragement were the best tools to encourage his students to become involved. He also provided words of affirmation so that his students knew that they were doing a good job.

Both Kevin and Sharon mentioned that the age of students impacted how they responded to sustainable development topics and to new programming in general. Both teachers felt senior secondary school students responded very well. Sharon mentioned that junior secondary school student tended to be very self-motivated and that if teachers shoulder tell them to try something new, many would take the idea and run with it. Kevin tried to incorporate sustainability themes into Science class but found that the students did not respond well. "They seem like such an ambivalent group of students at that age," he explained. Sharon concurred with Kevin's sentiment. She found students to be very focused on the social aspect of school to the detriment of their academic. Both Sharon and Kevin also mention that they had similar difficulty with JSS 1 and JSS 3 students. JSS 1 students are acclimatizing themselves to their new surroundings in school and JSS 3 students were focused solely on graduation. There was a difference in how the teachers perceived how gender of students impacted their interest in sustainability class projects. Ute found the girls to be more interested while Esuiku who also taught junior school, found the boys more interested.

Esuiku found that his JSS girls were hesitant to use tools and doubted their ability to contribute to some of the projects. Both senior secondary school teachers noticed a greater interest on the part of female students. Sharon mentioned that difference was fairly typical in psychology courses offered at her particular school. No generalizations can be made from these perceptions as only four teachers were taken into account.

➤ **Discussion of theme three.**

The four teacher participants' perceptions on the impact introduction to sustainable development had on students was organized into three sub-areas: empowerment, education as a transformative experience, and student

response. The empowerment of students can be linked directly to different strategies that could be used to teach about sustainable development. Jensen and Schnack (1997), Lundegard and Wickman (2007), and Barrett (2007) proposed an action competence approach which allowed students to critically engage with the underlying problems in society and then to engage in critical action to overcome these problems. This approach transcended simply educating students about recycling or composting as discreet units separate from one another. For an approach to be considered as action competence approach students need to learn through the decision process of taking on action projects and assessing the progress they made.

Jensen and Schnack (1997) refer to examples such as recycling old newspapers or taking public transit as activities instead of action, illustrating the difference in intent. Jensen and Schnack would find actions, such as the ones listed above, as lacking in that they do not promote critical thinking and they do not address the deeper values at play. Kevin's sustainability assignment would be the best example of an action competence approach from this study. Students chose their own topics and critically reflected on the problem before arriving at a solution. During this experience, Kevin also emphasized the interconnection between what they learned in class and each student's project. In terms of the view that the teacher participants viewed education as a transformative experience, they all hoped that their students' choices would be impacted by the issues discussed in class. Palmer and Birch (2003) and Hart (2003) agreed that Education for Sustainable Development was fundamentally about making individuals want to change their behaviours after impacting their attitudes and beliefs. Projects such as the sustainability action projects would have raised awareness and brought about both personal and social transformation. From my experience, when students have a lot of exposure to sustainable development ideas, those ideas impact the decisions that they make years after leaving the class.

4.4 THEME FOUR: MODELING ENVIRONMENTALLY CONSCIOUS BEHAVIOURS

All of the teacher participants in this study took the old adage "practice what you preach" to heart as they attempted to model sustainable practices in their own lives. Esuiku's passion for making environmentally friendly choices was so much a part of his language and way of life that one could not help but acknowledge the powerful role model he was for all those around him. He used everyday occurrences as teachable moments; for example, he took pride in explaining why he chose to use his travel coffee mug instead of the disposable cups provided by the neighbourhood coffee shop.

Kevin conducted his own action plan alongside his students.

"This year I am biking (to work) once per week and for some reason, I don't, I put ₦50 towards green energy. However, if I bike twice a week, I can earn ₦50 back. Over the period I accumulated ₦150.00 towards green energy; however, I have been biking lately and the pot is down to about ₦100.00 Modeling was evident here for Kevin's action showed students his commitment to sustainability action projects and provided them with a positive example.

Ute gave credibility with his words by modeling sustainable choices whenever he could. He talked to his students about how his own family tried to make choices that would lead to the least effect on the environment possible. For example, his family wanted to see how much waste they could reduce at home and therefore measured the amount of weeks they could go without putting their garbage out for city pick-up. They were able to last a month without filling their garbage can by making small changes in their choices about packaging and food waste.

➤ Discussion of theme four.

Higgs and McMillan (2006) found that when students experience their teachers as role models demonstrating their commitment to sustainability in their life choices, students are more likely to be open to change and perhaps adopt them. While teachers have little influence on the culture and role models students are faced with outside of school, they can still have an impact on students. When students are given the same message repeatedly and also observe their teachers living that message themselves, they are more likely to adopt those behaviours.

4.5 THEME FIVE: SPIRITUALITY AND VALUES

Initially, two of the teacher participants mentioned that their decision to teach about sustainable development was related to their own spirituality. Ute linked his desire directly to his faith as a Roman Catholic. Sharon linked it to her sense of humans' relationship to God.

Ute message about environmental sustainability was directly linked to his faith. His message became a focus in the religion program and all aspects of school life. He based his teaching on Gospel values and how protecting the

Earth was part of having a relationship with God. He felt that it was his responsibility as a Christian to be a steward of the Earth. He pointed out that teachers teach what they believe to be important, regardless of whether those topics were currently in the curriculum. If a teacher was passionate about electronics, stories and examples about electronics would permeate that teacher's lessons. For Ute sustainability and protecting God's Earth and forming a connection with the Earth were what he believed to be important. Therefore, those ideas were what he integrated into his teaching on a daily basis.

Like Ute Sharon's interest in social justice and sustainability was linked to her faith. Sharon spoke about education being fundamentally about relationships and humanity's relationship to the Earth and to God as central to that notion. Sharon also spoke about how teachers' values relate to what they teach in their classroom. Sharon described all education as values education in that teachers teach what they value and what they perceive to be important. What teachers value and what they do not became part of the hidden curriculum of schools. Sharon pointed out that what was left out of the curriculum became something that may be viewed as not valued, because these topics were not generally overtly named, examined, and enacted.

Esuiku and Kevin did not initially mention spirituality or their employment with a Christian school division as affecting their choice to teach about sustainable development. I went back to these two teacher participants to ask if their faith was a motivator. Kevin stated: "*In my mind, we have a moral, ethical and spiritual responsibility to teach about sustainability, environment,, and energy issues.*" Esuiku also felt that his sense of spirituality and the First Nations' spirituality he brought into his classroom were related to his interest in sustainable development.

➤ **Discussion of theme five.**

Initially, I expected those teachers who were teaching about sustainable development to relate it to a desire for their students to become more socially conscious global citizens. In my own classroom, sustainable development is the theme I used to foster a better understanding of what it meant to be part of a community and to be a good citizen. All teacher participants mentioned in some way that they hoped for their students to come to value the environment through the experiences that they shared in class and with one another. The teachers' goals were also concerned with creating a sense of community and responsibility within their schools and classroom.

When I was writing the literature review I examined how values were linked to Education for Sustainable Development. The link between Education for Sustainable Development and values education was emphasized by UNESCO (2003) where ESD was described as fundamentally being about values of respecting others, diversity, the environment, and the Earth's resources. All teacher participants in this study agreed upon this notion. The value of respecting others, the Earth, and us was mentioned by all as one of the reasons for teaching about sustainable development. By values education I do not mean a packaged program that attempts to teach isolated values to students. I understand values education to be part of one of the Common Essential Learning's in the curriculum. It could be placed under Personal and Social Values and Skills. An example of this was when Sharon took her students to the youth center. She hoped to teach her students to show empathy, compassion, and respect through their exposure to the stories of young people who experienced hardships and challenges.

In this theme, I chose to link spirituality with values because I see them as intrinsically connected (Hill & Johnston, 2003). The teacher participants shared the view that their values arose from their spirituality. I had not predicted that spirituality would be brought into teacher participants' motivations for teaching about sustainable development. None of my original research questions were concerned with teacher participants' spirituality. Both Ute and Sharon initially linked their interest in teaching about sustainable development to their own spirituality. This compelled me to ask Esuiku and Kevin if working in a Christian school system affected why or how they taught about sustainable development. Originally I had not examined any literature on the connection between teachers' spirituality and their desire to teach about sustainable development. After exploring the connection with teacher participants I went back to the literature for further information.

English and Gillen (2011) define spirituality as "awareness of something greater than ourselves, a sense that we are connected to all human beings and to all of creation" (p. 1). The teacher participants in this study identified their spirituality with their Christian faith.

Hill and Johnston (2003) wrote about how accepting responsibility for caring for the environmental was a spiritual act that can begin to rejuvenate one's humanity. Caring for the environment appeared to renew Sharon

and Ute in some way. Sharon mentioned how she found being in nature restored her spirit. Ute agreed that camping or spending times outdoors was rejuvenating for him and his family.

4.6 THEME SIX: MEETING CHALLENGES AND FINDING ACCEPTANCE

The teacher participants mentioned a common obstacle in teaching about sustainable development. This challenge involved the level of acceptance their projects had with other staff members. Some of the students' projects necessitated the cooperation or input from other teachers. For example, Esuiku's school, all the other teachers needed to agree to keep a compost bin in their classroom and to remind their students to use it. In Kevin's case, he needed the support of his administration as he led the student-initiated Sustainability Club. Ute needed other staff members to remind their students to use the correct recycle bins and to model those behaviours in class. Sharon needed funding and support from her Schools Board in order to successfully carry out her newly created course on Social Justice. None of these teachers were working in total isolation. All of them needed cooperation from other staff members. While the majority of staff members were very willing to cooperate, there were some who were reluctant to make changes in what they were doing.

➤ Discussion of theme six.

Since Education for Sustainable Development was not overtly part of any of our curricula, Hart (2003) suggested that some teachers have difficulty fitting it in amongst the other demands on their time. He stated that it is difficult to "assign priority to environmental education among the cacophony of competing demands that characterizes the world of schooling today" (p. ix). Similarly, most governments have focused on structuring the educational system with the intent that students will be prepared to enter a global knowledge-based society as workers. Despite the political and social climate of schools, Esuiku, Kevin, Ute and Sharon found a way to incorporate what they believed to be crucial in students' educational experience into their classrooms.

5. CONCLUSION

We are now nine years into United Nations Decade for Education for Sustainable Development, specifically marked for focusing on the Earth's ecological future. I questioned what progress was being made to this end in our provincial educational system. I wondered what teachers were doing and how this declaration impacted their decisions.

The definition I chose of Educational for Sustainable Development when I began this study was the following: "all aspects of public awareness, education and training provided to create or enhance an understanding of the linkages among the issues for sustainable development and to develop the knowledge, skills, perspectives and values that will empower people of all ages to assume responsibility for creating sustainable futures" (Ravindranath, 2007, pp. 191-192). I initially chose this definition because it contained an emphasis on the values that underlie learning about sustainable development and in the promotion of action. After speaking with the four teachers and examining the different concepts they bring to life in their classrooms, I would like to propose that Education for Sustainable Development encompasses all the training, public awareness, and educational activities that enrich our understanding of the connection between social justice and the environment while facilitating people of all ages to take action to promote justice and respect for all people and the Earth.

The one thing that will make the most difference in teaching students about sustainable development is the teacher's passion. All the teacher participants in this study demonstrated their passion through their commitment, creation of interesting action projects, and interest in sustainable development. Passion and enthusiasm can be passed so easily from person to person. When we see someone who truly loves what they are doing or what they are talking about, it makes us want to become part of that.

As Suzuki and McConnel (1997) stated: "We can only rediscover our human connections with the earth if we begin with our children's education" (p. 23). Our schools are the perfect location to begin to teach children about their responsibility toward the Earth.

REFERENCES

- Adesina, S. (1982) (Ed) Educational Management Enngy: FDP
Alsop, S., Dippo, D., & Zandvliet, D. B, (2007). Teacher education as or for social and ecological transformation: Place-based reflections on local and global participatory methods and collaborative practices. *Journal of*

- Education for Teaching*, 33,207-233.
- Ballantyne, R., Connell, S. & Fien, J. (1998). Students as catalysts of environmental change: A framework for researching intergenerational influence through environmental education. *Environmental Education Research*, 12,413-427.
- Barrett, M. J. (2006). Education for the environment: Action competence, becoming, and story. *Environmental Education Research*, 12, 503-511.
- Bonnett, M. (1999). Education for Sustainable Development: A coherent philosophy for environmental education? *Cambridge Journal of Education*, 29,313-325.
- Bonnett, M. (2006). Education for sustainability as a frame of mind. *Environmental Education Research*, 12,265-276.
- Bonnett, M. & Williams, U. (2009). Environmental education and primary children's attitudes towards nature and the environment. *Cambridge Journal of Education*, 28, 159-175,
- Carr, D. (2004). Moral values and the arts in environmental education. Towards an ethics of aesthetic appreciation. *Journal of Philosophy of Education*, 38,221-241.
- Denzin, N.K. & Lincoln, Y.S. (1994). *Handbook of qualitative research*. Thousand Oaks, CA: Sage.
- English, L. M., & Gillen., M. A. (2011). Addressing the spiritual dimensions of adult learning: What educators can do. *New Directions for Adult and Continuing Education*, no. 85. San Francisco: Jossey-Bass.
- Enaohwo J.O. (2011) Economics of Education and the Planning Challenge. Anmol Publication.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). U.S.A.: Pearson Education, Inc.
- Grant, T. & Littlejohn, G. (2004/2005). *The Earth Charter: A shared vision for our common future*. Green Teacher, 75,75-80.
- Harris, A. (2008) Effective teaching: A review of the literature.. *School Leadership and Management*, 18, 169-183.
- Hart, P. (2003). *Teachers thinking in environmental education: Consciousness and responsibility*. New York: Peter Lang.
- Hartsell, B. (2006). Teaching toward compassion: Environmental values education for secondary students. *The Journal of Secondary Gifted Education*. 17,265-271.
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. New York: SUNY Press.
- Higgs, L. & McMillan, V. M. (2006). Teaching through modeling: Four schools' experiences in sustainability education. *The Journal of Environmental Education*, 38, 39-53.
- Hill, L., & Johnston, J. (2003). Adult education and humanity's relationship with nature reflected in language, metaphor, and spirituality: A call to action. *New Directions for Adult & Continuing Education*, Retrieved October 18, 2008, from Academic Search Complete database.
- Jensen, B. B. & Schnack, K. (1997). The action competence approach in environmental education. *Environmental Education Research*, 12,471-486.
- Kohn, A. (1999). From grading to degrading. *High School Magazine, March*, 1999,38-43.
- Kohn, A. (1994). Grading: The issue is not how but why. *Educational Leadership*, 52, 38-41.
- Lundegard, I. & Wickman, P. (2007). Conflicts of interest: An indispensable element of education for sustainable development. *Environmental Education Research*, 13, 1-15.
- Mabry, L. (2007). Case study in social research. In L. Brickman, J. Brannen & P. Alasuutari (Eds.), *Handbook of Social Research*. Newbury Park, CA: Sage.
- Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey-Bass Publishers.
- Nduka, Otonti (1964), *Western Education and the Nigerian Cultural Background*, Oxford: Oxford University press.
- Nduka Otonti, (1981) "Moral Education in the changing societies of sub-saharan Africa". A paper delivered at the international conference on morality and moral development held at Miami, Florida USA from 17-19 December, 1981.
- Okeke, B.S (2010) *Introduction of Politics of Education*. Port Harcourt: Bengry Publishing Company.
- O'Sullivan, E. (1999). *Transformative learning: Education vision for the 21st century*. London: Zed Books.
- Palmer, J A. (2010). *Environmental education in the 21st century: Theory, practice, progress and promise*. New York: Routledge.
- Palmer, J. A. (1999). Research mailers: A call for the application of empirical evidence to the task of improving the quality and impact of environmental education. *Cambridge Journal of Education*, 29,379-395.

- Palmer, J. A. & Birch, J. C. (2003). Education for sustainability: The contribution and potential of non-governmental organization. *Environmental Education Research*, 9,447-460.
- Rauch, F. (2002). The potential of education for sustainable development for reform in schools. *Environmental Education Research*, 8, 43-51.
- Ravindranath, M. J. (2007). Environmental education in teacher education in India: Experiences and challenges in the United Nation's Decade of Education for Sustainable Development. *Journal of Education for Teaching*, 33, 191-206.
- Saskatchewan Education. (1993). *Science: A curriculum guide for the middle level*. Saskatchewan: Saskatchewan Education, Training and Employment.
- Smyth, J. C. (2005) Environment and education: A view of a changing scene. *Environmental Education Research*, 12,247-264.
- Stevenson, R. B. (2007a). Schooling and environmental/sustainability education: From discourses of policy and practice to discourses of professional learning. *Environmental Education Research*, 13,265-285.
- Stevenson, R. B. (2007b). Schooling and environmental education Contradictions in purpose and practice. *Environmental Education Research*, 13, 139-153.
- Summers, M. Corney, G., & Childs, A. (2003). Teaching sustainable development in primary schools: An empirical study of issues for teachers. *Environmental Education Research* 9,327-346.
- Suzuki, D. & McConnel (2009). *The sacred balance: Rediscovering our place in nature*. Vancouver: Greystone Books.
- UNCED. (1992). Agenda 21. New York, UNCED.
- UNESCO (2003). *United Nations Decade of Education for sustainable development (2005-2014)*. Framework for the international implementation scheme. Retrieved November 22, 2007 from <http://unesdoc.unesco.org/images/0013/001311/131163e.pdf>.
- WCED. (1987). Our common future. World Commission on Environment and Development. Retrieved November 27, 2007 from <http://www.undocuments.net/wced-ocf.htm>
- Wormeli, R. (2006). Accountability: Teaching through assessment and feedback, not grading. *American Secondary Education*, 34, 14-27.
- Yesutu, T.M (2012) (ed) *Man power problems and Economic Development in Nigeria*, Ibadan: Oxford University Press.