Sustainability Education (SE) in Primary School Curriculum in Tanzania: Exploring Teachers' Views and Perceptions.

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Abstract
This study explores the views and perceptions of teachers on the integration of sustainability education into primary education in Tanzania, East Africa. Empirical studies by Kimaryo (2011) and Mtaita (2007) discovered that although EE is included in Tanzanian primary schools since 1960's and even stressed in the policy of education in 1990's yet, the condition of environment has not improved. Numerous studies also found that the implementation of EE has not been successful while the state of environment is deteriorating (Morrison 2013, Kimaryo 2011, Mtaita 2007). Despite the fact that research shows the integration of EE in primary schools in Tanzania has yielded little results, yet there is dearth of research in this area. The study is qualitative in nature based on grounded theory approach mainly Straussian perspective. Data was gathered from five primary schools' teachers using interviews and document review. A thematically focused analysis of data from teachers revealed that environmental changes and challenges are mainly seen as anthropogenic. Awareness of pillars of sustainability is generally low and their balance is impossible without addressing the poverty issue. Further the study shows that both multidisciplinary and single subject approaches are effective ways to integrate EE into the curriculum. Teachers' competence and motivation are lowered by lack of resources and professional training, large class sizes and work load as well as lack of government priority on environmental issues.

Keywords: sustainability education, teachers' perceptions, school curriculum

Introduction

Environmental challenges have enormously dominated global, regional and local levels' agenda over the past four decades. Evidence from numerous studies have shown that, biodiversity is declining rapidly due to human activities such as overexploitation, harvesting, habitat destruction and modification, pollution and the introduction of exotic species (Trombulak et al. 2004; Hooper et al. 2005). As a consequence, the loss of biodiversity and deteriorating ecosystems has contributed to worsening human health, higher food insecurity, increasing vulnerability of ecosystems to natural disasters, lower material wealth, worsening social relations by damage to ecosystems highly valued for their aesthetic, recreational or spiritual values (MEA, 2005). Moreover, studies have associated environmental changes with a host of negative problems including altered distributions of some infectious disease vector (ticks at high latitudes, malaria mosquitoes at high altitudes), and an uptrend in extreme weather events and associated deaths, injuries and other health outcomes (McMichael & Lindgren, 2011). Worldwide, environmental related problems have become a multi sectoral issue with reports on the projected severe impacts of climate change on human existence, beginning to shape educational research in areas such as curriculum and learning (Lister, 2010; Selby & Kagwa, 2009). With this in mind, both educational policy makers and curriculum developers play active roles on environmental agenda (Mutisya & Barker 2011). On this basis, Environmental Education (EE) has continued to dominate global agendas for the past decades and became a recognized area of the curriculum in many parts of the world since 1990's. Initiated by international documents such as '*Our Common Future'* calling for the integration of environmental education into curricula at all levels of national educational systems (WCED, 1987), both environmental education and environmental education for sustainable development (EESD) are now aspects of curricula in many European countries and Third World nations (Bonnett, 2003).

As pointed out by Sarabhai, Pandya and Namagiri (2007), the 1977 Tbilisi intergovernmental conference on EE is considered as the defining milestone in the field of EE. Amongst the very important recommendations of the conference was emphasis on knowledge, awareness and understanding of environmental problems, their causes and solutions, both locally and globally (UNESCO, 1978). And according to the, UNESCO, Tbilisi Declaration (1978), 'Environmental Education means a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges and fosters attitudes motivation and commitment to make informed decisions and take responsible action. The need and importance of EE has been emphasized in various national policies and strategies, on the other hand the United Nations Decade of Education for Sustainable Development (DESD) (2005-2014) aimed at providing people with skills, values and knowledge to create a sustainable present and future including environmental, social and economic dimensions.

This echoes the Tbilisi declaration that EE should be provided to all ages and grade levels and be interdisciplinary in its approach (UNESCO 1977), that is to say, it should be taught in multiple disciplines and not isolating EE in one course or discipline.

We all understand that environmental problems and challenges are global and borderless, affecting life supporting systems of the earth across countries including Tanzania. These problems include; environmental pollution, deforestation, land degradation, lack of access to safe and clean water, loss of biodiversity and global warming (UN, 2010). As a consequence, these problems incapacitate the earth's ability to provide for her diverse population. In cognizance of the environmental problems and the associated impacts, Tanzania like many other countries has shown a strong commitment in efforts to implement Agenda 21 by emphasizing EE in schools. Hence, Tanzania´s educational system, through the curriculum of the different levels, has in one way or another included in its curriculum EE content.

Literature

Sustainability education and environmental education are terms that have given rise to debate concerning how they are defined and relate to each other. Some arguments state that education for sustainable development has evolved from environmental education (Yang, Lam & Wong, 2010; Tilbury and Cooke, 2005). Other authors claim that these terms are the same and can be used interchangeably, EE has acquired another name to become ESD (McKeown & Hopkins, 2009). Hence, there are varying perspectives concerning the relationship that exist between them. A closer relationship between education for sustainable development and environmental education reveals that both have the same vision with a focus of creating a better world and balance between the economy, ecology, and society. It seeks to balance the human well-being and cultural values and traditions with respect to the earth's natural resources. Both EE and ESD are seen as tools for bringing about sustainable development. EE is therefore inseparable from sustainable development and they have more common features than differences. The model of Education for sustainable development is based on the UNESCO declaration which capitalizes on the balance between ecological, economical and social development. This article adapts the understanding of the concept of sustainability education to be the same as environmental education which focuses in enabling pupils to acquire knowledge and skills, participate in making informed decisions individually and collectively, both locally and globally that will improve the quality of life now without damaging the planet for the future (DfEE 1999).

Sustainability Education and School Curriculum

A school curriculum reflects the political and ideological values of a society. Its philosophy is inseparable from the social political system that education is called to serve. Factors such as religion, culture, technology, economy, political regime, history, research and tradition influence the curriculum directly or indirectly. The curriculum is not a neutral document but rather a cultural artefact and its analysis is political in essence (Sofou 2010). According to Kessler (1991), curriculum decisions depend on what the community believes to be important and involve assumptions about the nature of knowledge, about what is valued and considered important as well as answers to the questions of how to live ' the good life'. Philosophical analysis is central to all discussions about the curriculum. Cuban (1995) advocated that there are actually four types of curriculum in schools: The *official* curriculum, these are curricular frameworks and course of study set forth by the state or district officials and expect teachers to teach it and assume students to learn it. The *taught* curriculum,

this is what teachers, working alone in their classrooms, actually choose to teach. Their choices derive from their knowledge of the subject, experiences in teaching the content, the like or dislike for topics and their attitudes towards the students they attend daily. The *learned* curriculum, this is much more inclusive than the overtly taught curriculum. It is beyond what the test scores reveal about content knowledge. Students also learn many other unspecified lessons embedded in the classroom atmosphere. They will learn to process information in meticulous ways not in others, when to or not to ask questions, respect for others depending on teacher models. The last is the *tested* curriculum, what is tested in schools is limited to what is prescribed by policy makers, taught by teachers and learned by the students. Standardized tests often represent the poorest assessment of the other curriculums.

Teaching about the natural and built environment provides a real world context for learning by linking the classroom to the pupils' community. Pupils are engaged in hands on activities, active learning that increases their awareness and knowledge about their environment. Since EE encourages inquiry and investigation, pupils develop critical thinking, problem solving and effective decision making skills. Pupils who are environmentally literate become citizens who can weigh various sides of environmental issues and make responsible decisions as individuals and as members of the community (EPA 2003). EE is therefore very crucial considering the current environmental issues such as climate change as a result of global warming, which is also advancing in most areas of the world, in ways that feature increasing storm intensities, shifting rainfall patterns, melting glaciers, rising sea levels and other manifold alterations (Philander 2008; Parry et al. 2007).

Environmental Education in Primary School

One can assume that if EE is adequately addressed at primary school level, awareness will be created and most likely sustained, since personalities are easily molded and shaped at earlier ages (Kimaryo, 2011). Enrolment rates for primary school have been above 95% between 2003 and 2013 (BEST, 2014), while only 15% progress to start secondary school (Stralin &Wiman, 2009; BEST 2012), even with a decreasing trend of 13% in 2016 (BEST, 2016). Therefore, conducting this study at the level of primary education may have significant qualitative and quantitative impacts when it comes to young peoples' thinking, attitudes, feelings and behaviors towards the environment. Research indicates that early investments in human capital offer significant returns both to individuals and to the wider community (Davis, 2008). Moreover, from developmental science, studies have shown that experiences deeply felt by children are likely to be carried with them in their life span (Pressoir, 2008; McCain, Mustard & Shanker, 2007). Mustard (2000) and Rutter, (2002) add that, childhood years are the period of the greatest and most significant developments in a person's life and are generally regarded as the foundation upon which the rest of life is constructed. Yet, the early years are those that traditionally receive the least attention from the educational world especially in the field of environmental education and education for sustainable development (OECD 2006).

In line with that, both the old and new Tanzanian education and training policies of (1995 & 2014) emphasize in their objectives the need to provide knowledge from childhood on, that means pre-primary and primary school children. The rationale has been on the holistic development of the child in physical, mental, moral, attitude and

social dimensions. It further emphasizes the education that is provided in schools must build capacity to students and the community to be responsible citizens and have a culture to love and care for the environment. Education should help children acquire values, appreciate, respect and develop pride and identity in their societies. In countries like Finland EE has been placed in the national core curricula for primary education and the responsibility for the environment, well-being and sustainable future is the core objective of basic education (National core curriculum for basic education, 2004). In other countries including Australia, Germany, USA, Hongkong, France, and Kenya it is well placed. Nevertheless, in many countries EE is still a non-mandatory content in school curriculum (Mutisya & Barker, 2011; Eames et al., 2008; Tilbury, 2004)

Following the education and training policy of 1995, the government of Tanzania necessitated the formation of National Environmental Policy (NEP) of 1997. It stresses that, the lives of all Tanzanians are intimately connected to the environment. The economy of the country depends entirely on the country's environment and natural resources, and 66% of the Gross Domestic Product (GDP) is realized from agriculture, forestry, fisheries, livestock, water, energy, tourism and mining activities (URT, 2009). Thus, the current survival and that of future generations depends very much on the relationship with the natural elements. The Tanzania development vision 2025, states inter alia that a strong and competitive economy will be pursued while "effectively reversing current adverse trends in the loss and degradation of environmental resources and the accumulation of hazardous substances" The National Strategy for Growth and Reduction of Poverty (NSGRP), has mainstreamed environment and set a framework on national efforts from 2005-2010 on achieving higher and sustainable levels of growth and reduction of poverty. Poverty is a widespread phenomenon in Tanzania and is perceived by many as both a cause and consequence of environmental degradation. People who lack adequate resources have little alternatives and are likely to overuse their environment. Thus, the issue of how poverty impacts the environment and how a degraded environment reinforces poverty are mutually interrelated processes. The National environmental policy identified the country's six major environmental problems which include: environmental pollution, land degradation, lack of accessible, good quality water for urban and rural inhabitants, loss of wildlife habitats and biodiversity, deterioration of aquatic systems and deforestation. Following these problems/challenges, the policy stipulated among other objectives; to raise public awareness and understanding of the essential linkages between environment and development, and to promote individual and community participation in environmental action; to ensure sustainability, security and equitable use of resources for meeting the basic needs of the present and future generations without degrading the environment or risking health or safety (URT, 1997).

Despite these strategies, literature shows that implementation of EE has yielded little results and environmental problems in Tanzania keep mounting day by day (Wells et al., 2007).

Nevertheless, teachers are regarded as key to successful integration and implementation of EE in schools. A comprehensive integration strategy demands a great deal of cooperation from the teachers and they must be in favor of the integrated EE curriculum (Volk 1993). Other researchers agree that for EE to be successfully integrated into the curriculum, teachers need background information to provide ideas

and strategies to teach about environmental issues (Disinger, 1993; Braus 1993; Simmons, 1989 & Hayden et al., 1987). A plethora of studies have found that the teaching of EE in many schools is not implemented effectively not only in Tanzania but also in many other countries (Kimaryo 2011; Mtaita 2007; Barraza, Duque-Aristizabal & Rebolledo, 2003). Studies by Mastrilli (2005) and McKeown-Ice (2000) have pointed out that actual implementation depends on the motivation of the individual instructor. This suggests that the implementation of EE is a complex and a challenging process to educators. As argued by Rauch and Steiner (2005), the integration of EE into school curriculum is a new innovation in education therefore it requires an appropriate design and implementation of teacher programmes and in conceptual changes. Hence, an understanding of the implementation of EE in Tanzania elementary schools remains important.

Statement of the Problem

Teachers' beliefs, thoughts and decisions on educational matters make up a highly significant part of the teaching process. (Fullan, 1989). Many researchers have argued that greater understanding of teachers' beliefs and perceptions is paramount to the improvement of educational practices (Lumpe et al., 1998; Fang 1996 & Tobin et al., 1994). Therefore to conduct research on perceptions, however, is critical for better understanding the varied ways people (in this case educators) frame and enact environmental beliefs (Hemlich et al. 2013). In search of empirical evidence literature shows that there is paucity of research done to explore teachers' perceptions and beliefs despite the fact that teachers are the main determinant to successful implementation of school curriculum (Pedretti & Nazir 2014; Potsi 2013). Some researchers in other countries have conducted studies on perceptions including Van Petegem & Blieck 2007. Literature reveals that there is little research with regard to teachers' views and perceptions in Tanzania primary education in particular. Studies done by Kimaryo 2011; Mtaita 2007; Lindhe 1999 and Osaki 1995 capitalized on secondary education. Their main focus was on perceptions of stakeholders on EE and on complementary basic education. In general, there is dearth of research that gives a critical analysis of the integration of EE in the primary school curriculum specifically exploring views and perceptions of implementers. This study therefore intends to explore the views and perceptions of teachers as key education stakeholders on the integration of EE into Primary school curriculum and whether it promotes Education for Sustainable Development (ESD).

Purpose of the Study

The aim of this study is to explore teachers' views and perceptions on the integration of EE in the primary school curriculum.

Specifically the study intends to answer the following questions

1. *What views and perceptions do teachers have on environmental changes and challenges?*
2. *What views and perceptions do teachers have on EE content, instructional methods and resources used in integrating EE content into their subject curriculum?*

Methodology

The study included five primary schools, three from Dar es Salaam and two from Kilimanjaro regions. The sampling constituted 28 respondents under the following categories: 5 heads of schools, 21 subject teachers including environmental clubs teachers, 2 curriculum developers. The researcher employed purposive or theoretical sampling, which involved the deliberate selection of individuals by the researcher based on predefined criteria, because the researcher needed to consider the sample that would generate rich data for the study (Best and Kahn, 2006; Cohen, et al., 2007). Data was collected through interviews and document review.

The study used qualitative methods with in depth interviews and document analysis to gather data for the analysis. The study applied some of the grounded theory procedures from (Straussian perspective) due to its ability to interpret complex phenomena, its ability to accommodate social issues and appropriateness for socially constructed experiences. (Charmaz, 2006; Strauss and Corbin 1990). Straussian school of thought has its roots from the social constructionist ontology and post structuralist paradigm which emphasizes on diverse local worlds, multiple realities and complexities of particular worlds, views and actions (Devadas et al., 2011; Mills et al., 2006). The study also applied thematic data analysis and content analysis to analyze the data (Braun & Clarke, 2006; Kuckartz, 2014).

Conclusions

Analysis and Discussion

Environmental changes and challenges

Teachers' responses show that there are a lot of changes and challenges they have observed and experienced in a period between five to ten years past. According to frequency and intensity of occurrence in teacher's responses one can say that changes and challenges are visible since they are mentioned by almost every participant and they can be categorized as follows:

Climate change is an important general topic raised. Its severe consequences such as extreme weather conditions have led to changes in rainfall pattern resulting in alternating drought periods and flooding as observed by many teachers. This coincides to the findings by Umar and Ozohu, (2015). The issue of climate change and global warming was raised although it showed that teachers could not make a clear link between the two, neither could they explain in detail which gases when emitted cause the change in the natural atmospheric condition of the earth's surface.

Besides that, main changes and challenges are different between rural and urban environments. In the rural area of Kilimanjaro deforestation was the main environmental topic and issue for the teachers. For many, it is associated with soil erosion and land degradation leading to drought and at the utmost to desertification. Economic factors were seen as the main source for the destruction of forests. For example the need for timber, charcoal, firewood, honey and lands for farming activities accelerate the destruction. Teachers also were of the opinion that if the government will subsidize energy costs like gas and electricity people will reduce cutting trees for charcoal and firewood which a majority population of Tanzanians

depend upon. Teachers also emphasized that if poverty issue is not addressed, it is very difficult for people to conserve the environment especially forest resources.

On the other hand in the densely populated urban area of Dar es Salaam, waste management and pollution are the main issues mentioned. Here poor town planning and lack of sound infrastructure are contributing very much to the situation. Teachers had varied perceptions on the causes of poor waste management. Some teachers attributed the causes with irresponsible leaders and some perceived the problem to be a result of lacking commitment among the citizens themselves. The majority of teachers viewed the prevalence of cholera in urban areas as a result of using contaminated food and water, which is associated with the poor management of wastes. High rates of population growth and poor town planning are worsening the situation rapidly. World Bank data (2002) shows that more than 70% of population in Dar es Salaam city live in poor, unplanned settlements. Moreover, few teachers also talked about inorganic wastes from plastic products like water bottles and nylon bags. Teachers articulate that despite the advantages they have to the community, these inorganic wastes do not decompose and therefore are dangerous to plant growth and animals.

Air pollution was also a major concern for teachers. Industrialized countries have been pointed out by teachers to be the major contributors of emissions and therefore a major cause of air pollution. Majority of teachers believe that air pollution have contributed to the depletion of ozone layer and thus accelerate the cancer disease especially skin cancer. Teachers rarely talked about air pollution from their country or other developing nations, despite the fact that the trend of emissions even in developing countries is significantly rising. As found in Tanzania alone that green house gases (GHG) are expected to double between 2005 and 2030 (URT 2011). Other forms of pollution like land and water pollution were raised by a few teachers. They believe that toxins from industries and the use of pesticides and fertilizers are the main causes for land and water pollution.

It has to be noticed for further discussion that teachers are mixing up in their statements the issues of pollution by poisonous substances, ozone layer depletion and global warming leading to climate change.

Environmental changes and challenges are generally seen as resulting from solely human activities, being influenced by economic interests and poverty issues and aggravated by rapid population growth. This observation showed that teachers are not informed so much on the natural influences to environmental changes for example climate change. The natural occurrence of volcanic eruptions, ocean currents, the earth's orbital changes and solar variation contribute to climate change (Umar & Ozohu, 2015).

The rationale for sustainability education in primary schools

Education is seen by the teachers as a major factor to contribute for solutions of the different problems. They emphasized that environmental education, especially 'education by doing', is very essential and will contribute a lot to solve these challenges. They advice that the government should put priority on environmental issues since a healthy life comes from a healthy environment. Teachers believe that education forms a very strong foundation in one's life and therefore environmental

education should begin very early in life, even with preschool children, so that it becomes part and parcel of life. This will develop responsible environmental behavior and a community that is well informed of their daily actions towards the environment. Research done by Hungerford and Volk (1990) found that, citizenship behavior can be developed through environmental education, however, the challenge lies in the willingness to act or do things differently than how done in the past.

Teachers also think that there should be coordinated efforts in order to make the learning of environmental education effective. Teachers and parents need to work together to help the children acquire the necessary skills and values, for them to become responsible citizens now and in future. However, teachers in the urban private schools complained that parents did not want their children to do manual work. These schools had children from well off families and their parents pay a lot of money. So these schools hired people to do the cleaning of the environment and gardening. Teachers said that parents viewed manual activities as punishment and a waste of time. This shows that parents have not understood the importance of EE and teachers recommended that parents need also to be educated. Teachers complained that schools are too academic and the quality of schools was based only on academic achievement. This problem was not found in the public schools were the majority of children are from low income families.

Majority of teachers were of the view that exposing young children to learning EE is crucial. Teachers argued that the development of personality depends on the age. Teachers perceived that sustainable skills and values of a person demand early age learning. Teachers believe that early EE determines the type of citizens the nation will have in future. They see that environmental behavior can be easily developed when children are taught environmental issues at an early stage in life. Many teachers thought that EE should begin as early as preschool education in order to have effective outcomes. However they emphasized that teaching EE is very appropriate too in primary education since the majority Tanzanians can only access this level of education. Research findings from numerous studies have also supported the importance of early education. The study by Mustard, (2000) and Rutter, (2002) also prove that childhood years are critical and most significant developments in a person's life and regarded as the foundation upon which the rest of life is constructed. Kopnina, (2013); Heimlich & Ardoin, (2008) and Domka, (2004) also found that EE is vital at early ages since it ensures positive attitudes towards the environment.

Majority of teachers believed that by providing EE to the people many societal environmental challenges can be solved. However teachers emphasized that EE can be able to bring solution to problems only if it is done practically. To them learning by doing is what brings about changes and make people make informed decisions in the environment. However a group of teachers emphasized the importance of educating the entire society, since the majority population is not in school and they are the main actors on the environment. These teachers also called the role of both the government and the society for effective learning of environmental education that will bring about solutions. Government should show commitment and have an environmental strategy that will coordinate environmental education activities from lower levels such as village to the national levels. A study by Nwanekezi, et al. (2011) confirms that education is a major and effective instrument for the attainment of sustainable development in all human society today.

Teachers' awareness on integration of EE and pillars of sustainability in subjects
It was also revealed that majority of teachers were not aware of the pillars of sustainability, which are ecology, economy and culture. However, they gave their opinion on how it should be after understanding what it meant, with the explanation from the researcher. According to UNESCO (2005) the three main pillars of sustainability include environmental or ecological, economical and social cultural. Teachers said that the pillars are interrelated and therefore there is a need to balance. Here teachers differed in their perceptions. Some thought culture is the strongest pillar while others said economy is the strongest. In general teachers believed that man plays a central role and determines the success of failure of environmental protection. While majority of teachers believed that EE has a greater chance to bring about balance of pillars, a group of teachers had a different view that it is very difficult to bring about balance if people are not economically empowered, so they believe poverty needs to be addressed first for environmental sustainability.

Teachers' views and perceptions on sustainability education content adequacy
Teachers had varying perceptions regarding content adequacy for the subjects and levels they taught. Majority of teachers were of the view that the content placed on their subject curriculum was inadequate.

The best way to integrate sustainability education into the curriculum
The responses from teachers on this category varied among teachers. Some said that EE should be *integrated as a separate subject* to ensure its effective implementation. Other teachers said EE needs to be *integrated in few subjects* as *topics* those that have environmental nature like geography and science. The third category proposed EE be *integrated in all subjects*.

Teachers' instructional methods and resources
Majority of teachers declared to use direct transmission in their teaching and with very little teaching and learning resources. Large class sizes also hindered active learning due to insufficient time for individual interaction. Majority of teachers also said they had never been trained on-job, but even the pre service training was of poor quality.

The main challenge to successful sustainability education implementation
Majority of teachers said lack of EE and abject poverty were the main hindrance to effective EE implementation. Above all, government priority to EE issues was very low. It was believed by majority of teachers that failure to address poverty is a major threat and obstacle to environmental sustainability.

Limitations

The scope of this study was limited to a small sample and area making it difficult to generalize the findings to a large population. The study also concentrated on only one educational pillar which is teachers, among all educational stakeholders. Successful implementation of sustainability education does not depend on teachers only. The position and role of government in formulating and enforcing proactive educational and sustainability policies cannot be underestimated. The role of curriculum specialists and heads of schools are also paramount. However, the study targeted only the formal schooling system. The majority population is outside this system but yet

are main stakeholders of environment that also need sustainability education and to understand their perceptions on sustainability issues.

Suffice it to say that, there is very little concern on sustainability affairs in primary schools despite the fact that majority of teachers were aware of environmental changes and challenges.

Summary

The study has shown that majority of teachers were aware of environmental change and challenges. Climate change was a general factor pointed out by majority of teachers in both urban and rural to be the source of extreme weather conditions such as floods and drought as well as changes in rainfall patterns. Issues such as population growth, pollution and waste management were seen as urban challenges, while deforestation was mainly a rural challenge. Majority of teachers acknowledged the importance of EE in primary education and even in pre-school education; however, it was not practiced actively by majority of teachers. Teachers were of the view that, lack of educational resources such as human, finance and time were main obstacles for not engaging in active learning of EE. Poor professional training was also a major problem, majority of teachers were not aware of major pillars of sustainability. Teachers commented that their poor competence was a result of government poor priority on environmental issues. Majority of teachers said that EE content in the curriculum was quite insufficient despite the urgency state of environmental issues worldwide. According to teachers successful implementation of EE must include school children as well as the society at large because every human being has a role to play in ensuring environmental sustainability. Teachers also said that it is absolutely important to address the poverty issue in order to achieve environmental sustainability.

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