
RETHINKING EDUCATION FOR SUSTAINABLE DEVELOPMENT: A PARADIGM, DILEMMA AND SOLUTION

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Abstract

Educational Sustainability is a paradigm for thinking about a future in which environmental, social, and economic considerations are balanced in the pursuit of development and an improved quality of life. This study examines the extent at which education can be explored and be used as a tool to promote sustainability practices as the society and the world at large faces huge challenges. This paper will also deal with reorienting curriculum to address sustainability, principles of sustainability development, teaching techniques for educational sustainability, Delima and Solutions and conclusion.

Keywords: Rethinking, Education, Sustainability, Transformation, Reorienting Curriculum.

Introduction

Educational Sustainability is a paradigm for thinking about a future in which environmental, social, and economic considerations are balanced in the pursuit of development and an improved quality of life. These three spheres – society, environment, and economy are intertwined. For example, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water, and clean air for its citizens. The sustainability paradigm is a major change from the previous paradigm of economic development with its damaging social and environmental consequences. Atguwu (2022) Until recently these consequences have been seen as inevitable and acceptable. However, it is now obvious that major damage or serious threats to the well-being of humans and the environment in pursuit of economic development have no place within the sustainability paradigm.

As a concept, sustainability responds to a growing concern about the adverse impact of technology and increases in the level of human degradation on the natural environment by societal activities in the past two centuries. Development became the guiding principle of countries across the world after the Second World War (Khataybeha, Subbarinia & Shurmana, 2010). Most of the initial optimism in the discussion about sustainability was the appreciation of an opportunity to re-evaluate current narratives on development. Paradigms, such as the radical departure from economic and growth proposed by “deep ecologists” (Lovelock, 2009; Capra, 2000)

Notwithstanding, when branching out the discussion on sustainability into the realms of education or policymaking, the core of “development” remains unchallenged. For example, the United Nations Education They justify this option as a matter of convenience Educational Sustainability Development is the terminology used frequently at the international level and within UN documents. Locally or nationally, the Educational Sustainability Development (ESD) effort may be named. Further, Tilbury and Wortman (2004) and UNESCO (2011) have identified the key traits of ESD to be attained: envisioning; critical thinking and reflection; systemic thinking and participatory cooperation. Of course, these are all desirable aspects of all aspects of education and business. The problem is that the absolute acceptance of “development” and its inclusion on the allegedly new “educational paradigm” should not be a matter of “convenience”, because at the heart of the definition of “education for sustainable development” remains the tension between an instrumental and regulatory approach and a more critical and radical questioning on education and ‘development’. Following this ease in the consideration of the educational implications of the new ideas, it is not surprising that

“education for sustainable development” has been focused on strategies and plans, hence following the traditional business rationale of one-dimensional goal set where aspirations are premised on the “notion that the future will be a progression. Similar appreciations of education for sustainable development are adopted by higher education institutions, as ways of addressing the increasing demand from (Drayson, Bone, Agombar & Kemp, 2013).

Reorienting A Curriculum To Address Sustainability

The [process](#) of [changing](#) the [aim](#) or [purpose](#) of the curriculum to suit the present situation of teaching and learning adaptable in the classroom situation. According to the United Nations Educational, Scientific and Cultural Organization (2012) reorienting a curriculum to address sustainability can take place at a classroom or national level. At the classroom level, teachers can begin by explicitly stating the link between the topic in the mandated syllabus and sustainability. For example: From simple statements such as these, pupils will build their conceptions of sustainability and their knowledge of it. Several tools to reorient a curriculum to address sustainability have been created. The *ESD Lens* “Review Tool 9: ESD integration in the curriculum” provides a way for analyzing the extent to which ESD is integrated in the curriculum at national and school levels. The *Education for Sustainable Development Toolkit* contains eight exercises for reorienting a curriculum to address sustainability and holding community forums to gather public opinion related to curricular change. “Project Y” has also been used widely to integrate sustainability into existing lesson plans and units. Project Y takes a gradual approach, introducing one or a few new items related to sustainability in each lesson. Over the course of a school year, the aggregate amount of sustainability taught and time on task (i.e. learning about sustainability) can be substantial. UNCS (2012).

The reorienting process can also occur at national levels or provincial/state levels in ministries of education where the mandated curricula are written. A national or provincial process should be conducted more systematically and thoroughly than a reorienting process carried out by a teacher working in isolation or by a small team of teachers working in a school. A national or state level process would include inviting stakeholders to a public participation process to gather input (e.g. statements of needs and desires as well as opinions) related to the reorienting process. In this way, a ministry will be modelling public participation and transparency, which are essential elements of sustainability. To reorient a curriculum to address sustainability, educational communities need to identify the knowledge, issues, perspectives, skills, and values central to sustainable development in each of the three components of sustainability: environment, society, and economy, and integrate them into the curriculum. The education community also needs to decide which of the many existing sustainability issues (e.g. biodiversity, climate change, equity, and poverty) will be part of the curriculum. Ideally, efforts to reorient education will be based on national or local sustainability goals. A properly reoriented curriculum will address local environmental, social, and economic contexts to ensure that it is locally relevant and culturally appropriate. In an effort to save time or resources, governments have imported curricula from other countries or regions. In the case of ESD, this is inappropriate, because local and national sustainability goals and local contexts will not be well targeted.

Principles of Sustainable Development

- People are entitled to a healthy and productive life in harmony with nature if Education is sustained.
- The right to development must be fulfilled so as to meet developmental and environmental needs of present and future generations in an equitable way by the inclusion of extra curriculum.
- Eradicating poverty and reducing disparities in living standards in different parts of the world are essential to sustainable development.
- Environmental protection is an integral part of the development process and cannot be considered in isolation from it.
- International actions in the fields of environment and development should also address the interests and needs of all countries. Educational policies and guideline.

- To achieve sustainable development and a higher quality of life for all people, countries should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.
- Women play a vital role in environmental management and development. Their full participation is therefore essential to achieving sustainable development.
- Warfare is inherently destructive to sustainable development. Peace, development and environmental protection are interdependent and indivisible. These principles can guide the efforts of governments, communities and organizations to define sustainability goals and create programmes to help achieve those goals.

Teaching Techniques for Educational Sustainability Development

Storytelling

Telling stories to convey and illustrate sustainability ideas is an engaging form of teaching. Stories can be taken from current events, history, television programmes, literature, drama, and personal experience. Also, storytelling draws on the oral traditions of indigenous societies and folk art. Storytelling has been practised for generations as a means of entertainment, education or cultural preservation and to instil moral values among younger generations. Storytelling is an effective ESD pedagogy as the values reflected in traditional stories often contain the wisdom of the elders or stem from creation stories, which helps to impart respect for cultural heritage as well as the environment. Nisreen & Bushra (2017) is the use of stories or narration as a communication tool to value, share and capitalize on the knowledge of individuals. Story telling is a means for sharing and interpreting experiences Atta – Alla (2012)

Class Discussions

Class discussions allow for the transfer of information amongst pupils and from the pupils to the teacher, in addition to the traditional route from teacher to student. Student comes to the classroom with a wide variety of life experiences that can enrich the teaching of the mandated curriculum. Pupils can therefore contribute a great deal to discussions of sustainability with observations from their neighbourhoods about what is sustainable and what is not. Teachers can then incorporate these experiences into their lessons through class discussions that provide students with real life applications of concepts (Stthorn, 2006; Khalid, Muhamad, Asmaa & Wafa, 2018). Class discussion are valuable for developing critical thinking when students could know how to manage their ideas and then present them.

Simulations

Simulations are teaching/learning scenarios in which the teacher defines the context in which the pupils interact. The pupils participate in the scenarios and gather meaning from them. For example, pupils imagine they live in a small fishing village and have to learn how to manage the fishing stocks sustainably (i.e. without depleting the fishing stocks or starving the people). Often, simulations are simplifications of complex abstract concepts. At the same time, because they are distillations of real-world situations, simulations give a sense of reality and thus engage and motivate learners of all ages (Weldman & Coombs, 2016). Stimulation can be particularly powerful when used in social environment to build student understanding of the role that ethnic play in everyday life.

Dilemmas of Educational Sustainability Development

Infrastructure

A. Inadequate Basic Infrastructure. Though the efforts of the Federal Government of Nigeria through its Millennium Development Goal {MDGs} and UBE programme are quite commendable in terms of the provision of school infrastructures and textbooks, vast majority of the schools across the federation still remain, dilapidated, with collapsed structures, roofs and inadequate classroom / office furniture. In many schools, the children are observed to take lessons sitting on bare classrooms floors or other rudimentary seats. Some are under trees, with no basic infrastructural facilities does not only hampers learning but serves to significantly lower the standards of education. In the last three to four decades, textbooks, exercise books, pencils / pens, school uniforms used to be provided free of charge. This is perhaps the thrust of the policy behind the current UBE programme for Universal, free and compulsory education for all at the Primary and JSS levels of education. As things now stand, the reverse is now the case, as the education is neither “free” nor universal for children for which it is

originally designed (Oke, 2017). Poor infrastructure shapes student outcomes, for instance schools that do not have windows and doors; it serves as a shelter to “bad boys” around the area. They urinate and defecate in the classroom, which is an obvious cause of disease to the students. This shows a lack of respect for education and for the community. Also, students are exposed to harsh weather, which cause them to fall sick and miss classes resulting to poor performance, teaching science subjects without a laboratory to perform necessary experiments undermines student engagement because they do not understand what the teacher is teaching

B. Poor Monitoring and Maintenance of Minimum Standard. Although government has established Inspectorate Services Divisions in various Ministries of Education at both the state and Federal levels, with the primary goal of setting, maintaining and improving standards in all aspects of the Nigerian school system; and ensuring uniform standard and quality control {NPE, 2015. p.60}, it is unfortunate that the activities of these monitoring arms of government leaves much to be desired. First, there is a kind of “square peg in a round hole” syndrome, whereby school principals are often ranked higher in functional status than the Inspectors of education, instead of the other way round. This kind of situation tends to make it difficult for such Inspectors to effectively discharge their assigned duties and responsibilities. In practical terms many Education Inspectors tend to succumb to the dictates of school principals and heads, even when such heads fail to adhere to prescribed minimum standards of education in their various schools (Durosaro, 2011).

C. Poor Funding. Generally, our educational system has been funded. This can be attested to by the progressive decline in budgetary allocation for Education over the year. Money is urgently needed but little or none is provided for purchases of instructional materials / equipment for use in various schools. The prompt payment of entitlements of teachers which could have used to boost academic excellence in schools has consistently been overlooked or delayed. For many years, many mission-run schools that provided qualitative education to Nigerians were taken over by state governments with the intended goal of providing better funding and infrastructural development. However, such schools were unfortunately reduced to pitiable levels of mediocrity and neglect due to low salaries, poor working environment and lack of incentives. The result was poor levels of academic performance by students. Efforts aimed at restoring teacher professionalism that could, in turn raise standards and enable the education sector to regain credibility have so far recorded limited success (Ademolekun, 2018).

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Remuneration

Rewarding an employee in the form of wage including allowances, increases the interest of the teacher in carrying out his/her duties, because it makes the teacher feel valued and respected. Teachers are not motivated to perform their duty because their wage is very poor. Also, the late payment of wage demoralises teachers and affects them in carrying out their duties.

School Practices

It was observed that the leadership in some of the schools follow the government policy/document rigidly in managing the affairs of the schools. They do not consider the needs of the immediate environment. However, the leadership felt that the government document is a foundational principle that can be developed depending on the environment or culture of people where one finds his/herself.

Learning and Teaching Resources

Clear expressions of disappointments are recorded by the teachers on the poor state of education in the country due to lack of learning and teaching materials. This affects mostly in the area of science, teaching science with inadequate resources does not allow the students to engage well with their learning, school environment needs to be simulative and conducive to learning, in that way students can be easily guided through the discovery of knowledge on their own. The importance of

learning with teaching aids cannot be overemphasized because they create a visual and interactive experience for the students. Add more facts with citation

Solutions to Educational Sustainability Development

Formal Curricula and Pedagogy

Formal curriculum and pedagogy are re-designed to address and support the goals of sustainable development as well as achieve the ESD objectives. This strand is very crucial in ensuring that education plays its role in creating awareness of sustainable development to the larger population. Themes of sustainable development and ESD need to be infused into the curriculum, and the approach employed in delivering these topics determines how well the students can apply classroom knowledge to the real-life situation.

Leadership Style

Leadership style is a leader's method of providing direction, implementing plans, and motivating people. The key holder within the school can act as either a motivator or a barrier for the implementation of educational rules in the school. Thus, this can be considered as a local bottleneck. During the observation in the schools, head teachers among others was the only head teacher that was not prepared to welcome any change in her school. During an interview with ahead teacher, she was asked if she would encourage any teacher or students who came up with innovative ideas in the school and she responded that she would not encourage unless the idea came from the state education board. Also, it was observed that her relationship with the teachers in the school was not cordial. According to Harris (2002), a capable leader develops realistic strategies to quickly create knowledge. Therefore, the successful implementation of a new educational trend will require responsible, and accountable leadership that is expert in both systemic educational change and sustainable development.

Active Participation

Active participation is a competence that student need to reach a level of awareness of themselves in reaction to what is been thought in the classroom. Students where there was a good relationship amongst the staff and the students, gave a favourable report about their teachers as fair, respectful, caring and encouraging and rated their peers as cooperative and friendly. The students were significantly more likely than those in the rural schools to make more favourable comments about their school and to describe the general atmosphere of their schools in an affirmative way. The students felt valued, cared for, respected and listened to in school, and they recognised that staff were genuinely concerned about their well-being. According to a study carried out by John-Akinola, Gavin, Higgins, and Gabbainn, (2013), school children reported that positive interpersonal relationships and feeling a 'sense of belonging' were two aspects of the children school experiences which were significant in contributing to their feeling as members of the school community. When the students were asked more generally what they liked about their school, responses from the urban school showed 'having friends', 'playground for football', and 'teachers'. The students said they prefer the new press club created by one of the teachers because it gives them an opportunity to discuss pressing issues.

Institutional Practice: Technical and Economic Aspects

Within this strand, the school needs to apply the principles and practice of sustainable development to its management and running of the school. The principles and practice exemplify the teachings given to the students about ESD in the formal curriculum or acquired through teaching and learning if they understand that sometimes formal teaching happens outside the classroom environment, for example, field trips. The choices that schools make, which are compatible with the aims and principles of sustainable development, where necessary should be made known to the students and advantages of using such measure to help them, therefore, make their sustainable development informed decisions in the future.

Monitoring and Evaluation Monitoring and Evaluation is a combine term for the processes set up by the school, with the goal of improving teaching and learning in the school system

Within the monitoring and evaluation strand, the school has the opportunity to assess the effectiveness of policy and measures carried out within the school. Also, monitoring and evaluation create an opportunity to monitor the approaches to teaching and learning and knowledge acquired by the students. Monitoring and evaluation strand is the distinguishing feature of the school. Most

importantly, this feature ensures that all measures put in place in the school in achieving sustainable development are as much as possible effective and relevant to the school context.

A focus on methods and techniques needs to be replaced by a new conception of sustainable assessment required for lifelong learning. Sustainable assessment encompasses the knowledge, skills and predispositions required to support lifelong learning activities. If assessment tasks within courses at any level do not support lifelong learning, then they cannot be regarded as contributing to sustainable assessment. Though assessment for certification purposes is reasonable, however, ensure that learning has influenced action and that students have become active lifelong learners, they also need to assess tasks (Mogensen and Schnack, 2010).

1. Proper Implementation of Policies and Laws. The currently operative National Policy on Education is the major Statutory document that spells out the key policies and implementation strategies of the Federal Government on Education, alongside the UBE Act of 2004 and other international Conventions and Charters, {such as Education for ALL, MDGs} provide the principal legal documents through which the Federal Government of Nigeria should promote and implement a regime of 'Better Education for All'. But unfortunately, most of these pronouncements and laws are not fully implemented. For instance, both the National Policy on Education and the blue print of the Universal Basic Education {UBE} programme state that "Education shall be free at all levels., but the reality on ground is that increasingly exorbitant school fees are still being paid even at the primary school level. This obviously negates the provision of the Nations educational policies and laws which should be urgently redressed (Ogundele, 2019).

2. Increase Funding for Education It is important to restate that Nigeria has sufficient financial resources to ensure adequate financing of Education at All levels. Ademolekun(2018) has reported that about \$400 billion oil money was either out rightly stolen or mismanaged in Nigeria between 1960 and mid-2018 of which \$ 250 billion was wasted between 1999 and mid-2018. The author also reported that between 2016 and 2019, Federal Government Ministries, Departments and Agencies {including law-enforcement units} failed to remit about N4 trillion to the Federation account. That translates to N1 trillion per annum or 25% of the annual budget for those years (Oyediji, 2013)

Conclusion

Educational sustainability is an urgent developmental task for the society, it is attracting increase attention. Therefore, higher education is called upon to deal theoretically, conceptually, methodologically, critically, and reflectively with the associated challenges and the processes and conditions. Education is seen as an agent of change and alternatively as a subject of change. It must explore all the necessary requirements for the attainment of educational sustainability.

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