



Literacy Education and Sustainable Development in Developing Societies

Jonathan E. Oghenekohwo (Corresponding author)

Department of Educational Foundations, Niger Delta University, Wilberforce Island, Nigeria

E-mail: joeoghenekohwo@gmail.com

Ekima A. Frank-Oputu

Department of Social Science Education, Niger Delta University, Wilberforce Island, Nigeria

Received: 13-04-2017

Accepted: 29-04-2017

Published: 30-04-2017

doi:10.7575/aiac.ijels.v.5n.2p.126

URL: <http://dx.doi.org/10.7575/aiac.ijels.v.5n.2p.126>

Abstract

The development of a literate society is a pre-requisite for the emergence of a knowledge economy. The thesis advanced in this paper is that, without massive investment and promotion of literacy education, development that is targeted at the 17-point sustainable development goals (SDGs) will be bereft of citizen's empowerment, engagement, experiential values and evidential consequences in social change. Therefore, using a qualitative approach (conceptual), this study explored the causal correlation that subsists between literacy education, emergence of knowledge economy and sustainable development. The study established that, literacy is basic in andragogical context for facilitating citizens' values re-orientation attitudinal change for the acquisition of vocational or functional skills and operational knowledge that is beneficial to individual as well as the collective drive for a literate society for the reduction of vulnerability and increase in sustainability in development respectively as expected in the SDGs. Consequently, the resultant outcomes will be a knowledge driven economy which is essential for the attainment of the sustainable development goals as envisaged by the United Nations declaration of 25th of September, 2015.

Keywords: Literacy; education; sustainable development; knowledge economy and social-change

1. Introduction

It is acknowledged that the development of human capital is an essential drive towards the sustenance of socio-economic and political development of any nation. This informs the massive investment in literacy education programmes for the creation of access and equalization of literacy opportunities to all citizens irrespective of creed and economic status. Most recently, on the 25th of September, 2015, the United Nations postulated a 17-point Sustainable Development Goals (SDGs) that over-rides the 8-point Millennium Development Goals (MDGs). Whereas the MDGs with its targets focused only on developing countries, the SDGs with its 169 targets are all countries encompassing without prejudice to developing or developed countries. The expansion of the SDGs is due to the failure of most targeted countries to achieve their set MDGs targets by 2015. Consequently, the SDGs now maintains a gestation period of 2030.

On this premise, literacy education is critical to the attainment of the 17-point SDGs. This is on account that, these goals can only be achieved using the instrument of non-formal education in developing appropriate orientation, commitment, attitudinal change and genuine non-formal learning approaches among citizens in taking deliberative actions in altering the current discontenting global situations. Annan (2005) stated that, literacy is at the heart of sustainable development. It is further noted that literacy is a key lever of social change and a practical tool of empowerment on each of the three main pillars of sustainable development, namely: economic development, social development and environmental protection.

Meanwhile, Oghenekohwo (2013) advanced that literacy in capacity is factored by empowerment, engagement, experience and evidence, which represent the variables of education for development. The United Nations (2005) documented that literacy education can be a major tool for reducing poverty, enlarging employment opportunities, advancing gender equality, improving family health, protecting the environment and promoting core democratic values. In recent years, it is reported that many literacy education programmes have become increasingly oriented towards local needs, especially through a focus on community development and environmental protection. Consequently, it is obvious from the brief above that, literacy education is critical to the attainment of sustainable development as it provides enriched version of human capital investment for the attainment of SDGs.

Recall that the 21st century is not driven by rudimentary skills, which are not consistent with effective depended communication and participation. Acquisition of new dimensions in response to dynamics of social change depends on

literacy capacities that need to be supplemented, updated and upgraded so that individuals can respond appropriately to the dynamics of uncertainties with confidence. The fulcrum of the correlation between literacy education and sustainable development is enhancement of active citizenship, creative, adaptive and dynamic people as they shape and re-order their lives. In this respect, literacy education is a pre-requisite for effective social participation, an instrument of empowerment, engagement, experience and evidence at individual and community levels in response to sustainable development demands.

2. Issues in Research

As the foundation of learning throughout life, literacy education is at the heart of sustainable development. Yet, it is reported that there are an estimated 800 million illiterate adults, two thirds of whom illiterate adults, two thirds of whom are women and more than 100 million children are not in school. Most worrisome is that, support for literacy education at all levels of interventions continues to fall well short of expectation. Besides, exclusion of all sorts pervade every nation thereby limiting access to literacy education. How then can the SDGs be achieved within the set timeline of 2030? There is urgent need we revisit literacy education and sustainable development. This of course is inevitable as literacy is essential for sustainable human development in today's complex and fast-changing societies (Matsuura, in UNESCO, 2005).

3. Perspectives on Literacy Education

How literacy is defined influences the goals and strategies adopted and programmes designed by policy-makers as well as the teaching and learning methodologies coupled with curricula and materials employed by practitioners. Without prejudice, literacy lies at the heart of UNESCO's concerns and makes up an essential part of its mandate, being entwined with the right to education set forth in the universal declaration of human rights of 1948. These concerns according to UNESCO (2004) have to do with promoting the meaningful acquisition and application of literacy education in laying the basis for positive social transformation, justice, personal and collective freedom. Also, UNESCO promoted a positive approach to defining literacy needs and de-mystifying definitions, standards and measurements of literacy. A more analytical perspective came to distinguish literacy as a set of practices defined by social relations and cultural processes – a view exploring the range of uses of literacy education in the entire spectrum of daily life from the exercise of civil and political rights, through matters of vocation, employment, economics or trade, welfare to self-construction, spiritual enlightenment and even leisure (UNESCO, 2004).

In Education for All (EFA) 2000 Assessment, literacy is the ability to read and write with understanding a simple statement related to one's daily life. At an international expert meeting of UNESCO in 2003, an operational definition of literacy education, in particular for measurement purposes was advanced as the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals to develop their knowledge and potentials and to participate fully in their community and wider society (Street, 2003).

Meanwhile, Bhola (1984) noted that in today's world, where we read not only words in a written texts, but also a wide variety of other symbolic codes for transforming reality, literacy can be defined as:

the ability of a person to code and decode, smoothly and effortlessly, and with understanding, a living and growing system of symbolic transformations of reality, including words, numbers, notations, schemata, diagrammatic representations and other marks, inscribed on paper or other two-dimensional surfaces (cloth, celluloid or the screen of a computer terminal), all of which have become part of the visual language of a people and have thus come to be collectively and democratically shared by both the specialist and the non-specialist, such ability having become part of the current social, economic, political and cultural demand system of a society. (p. 260)

In other words, literacy education changed the literate's "technology of intellect" as it provides the acquisition capacities and potentials that were not possible without literacy, such as abstract context-freethinking, and differing ways of describing, classifying, reasoning and inferring based on the acquisition or accumulation of knowledge capital which is passed on to the next generation that underscores sustainable development expectations (Bhola & Gomez, 2008). Literacy education is needed more than ever before, not only to understand media messages better but also to enable us to cope with the technical aspects of the new information and communication technologies which require a minimum level of literacy (UNDP, 2001) for the attainment of a newly contextualized sustainable development elements of economic development, social development, environmental protection, and governance, peace and security. Literacy is then accepted as a driver for sustainable development.

Besides, Bhola and Gomez (2008) reported that a commitment to literacy for all in general and to literacy education for adults in particular has existed for a long time such that, all policy frameworks and public policy instruments on literacy education during the last decade have affirmed the role of literacy in sustainable development. Yet, the quest for sustainable development has recently gained attention as encapsulated in the envisioned sustainable development goals (SDGs). Nevertheless, thoughts and perceptions on principles, strategies and actions on literacy education clearly underpinned the contemporary understanding of literacy as a continuum of proficiency levels in a given context, such

context could be economic, social, environmental and governance, the basis of which is to ensure that no generational gap exist in terms of development as presently subsists.

4. Understanding Sustainable Development

Many definitions of sustainable development have either been postulated, suggested or debated, resulting in a concept that has become broad and somewhat systematically ambiguous. However, in the evolution of the concept of sustainable development, UNESCO (2006) presents the seven milestones in the development of the concept and the project of sustainable development as Bhola and Gomez (2008) noted thus:

- 1972: UN conference on the human environment in Stockholm leads to creation of the United Nations Environmental Programme (UNEP).
- 1987: “Our common future”, the report of the Brundtland Commission, popularizes the term sustainable development.
- 1992: Agenda 21 adopted at the earth summit in Rio de Janeiro as the basis for measuring progress in sustainable development.
- 1999: Launch of the global sustainability index tracking corporate practices.
- 2000: The millennium declaration, adopted by UN General Assembly; defines “respect for nature “as a fundamental value and commits” “to integrate the principles of sustainable development into country policies.”
- 2002: The world summit on sustainable development in Johannesburg promotes environmental protection, economic and social development as interdependent and mutually reinforcing.
- 2005: The UN decade of education for sustainable development (DESD) is launched to advance lifelong learning of knowledge, skills and values required for durable social transformation.

These milestones according to UNESCO, (2006) led to a more elaboration of the concept of sustainable development which in turn, became linked with paradigms of poverty reduction as well as all forms of exclusions, as mostly associated with financial and development information need of a people. The Brundtland Commission’s report ‘Our Common Future’ of 1987 which defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”, has become the accepted standard for conceptualizing the concept. Associated with the 1987 Brundtland Commission definition are three components that measure sustainable development, namely; economic growth, environmental protection, and social equity. These expectations can be achieved by gradually changing the ways in which we develop and use technologies for which literacy education is central. In a related understanding, the United Nations (1992) in addressing development and environmental challenges through global partnership, conceived agenda 21, which again advanced key aspects or elements of sustainability as; economic development, environmental protection, social justice, democratic and effective governance (Hussen, 2004).

Besides, progress towards sustainable development can also be measured by variety of indicators that are applicable at local, regional, national and international levels. Such indicators include economic performance, social equity, environmental measures and institutional capacity. Since sustainable development extends well above economic issues, as it links the economy, environment and society, and as such, no well-articulated and comprehensive economic theory or principle related to sustainable development exists. Consequently, we are of the frame that sustainable development encompasses the view that, a healthy environment is essential to support a thriving knowledge economy and so, all policies and decisions made must take into cognizance both the present and future worth of our resources in order to achieve continual economic development without compromising the environment. These attributes are sustained through literacy education (Hussen, 2004; Wiek, Withycombe, & Redman, 2011).

5. Issues in Sustainability of Literacy Education

The first issue which this study addresses is sustainability of literacy for sustainable development. Empirical evidences show that, overarching and general sustainability competencies in literacy have been researched, articulated, and evaluated (Wiek et al., 2011). Sustainability competencies in literacy education just like in other disciplines take the form of bullet point lists which aim to describe unifying themes, concepts, ideas, capacities, abilities, behaviours and knowledge sets that are required to move towards a greater vision of sustainability. Hence, competency in literacy education for sustainable development implies attainment of a wide range of skills, abilities, and behaviours that should be measured and observable (Bertschy, Kinzty, & Lehman, 2013; Wiek et al., 2011), especially as it relates to a knowledge economy as required for sustainable development.

Given that literacy education also depicts a collection of skills that allow for effective participation and influence in diverse areas of social life (Stibbe & Lunna, 2009), it denotes that, literacy education enhances a collection of skills that once achieved and formed, manifest a particular level of competence that can be measured in the future. In this respect, Nolet (2009) posits sustainability of literacy as various abilities and subsequent actions such as problem solving and informed decision making, process that bear on economy, environment, social-well-being and institutional capacities.

Meanwhile, in the connotation of literacy education for sustainable development Tilbury (2011) reported that sustainability literacy is more than conveying new knowledge, but that it “also means, learning to ask critical questions; envision more positive futures, clarify one’s own values; think systematically; respond through applied learning opportunities and explore the dialectic between tradition and innovation” (p. 13). Once individual gains sustainability literacy, it then becomes possible to be empowered to: (a) approach society with a critical lens, (b) advance knowledge to others, (c) make informed decisions, and (d) contribute to re-thinking intrapersonal, interpersonal, intragroup, and intergroup conceptions of society and the environment (Berstschy et al., 2013; Nolet, 2009; Stibble & Luna, 2009). Literacy education gives rise to a knowledge economy.

The second research issue is on the correlation between literacy education and empowerment, engagement, experience and evidence as encapsulated in knowledge economy for sustainable development. The elements of sustainability literacy (Berstschy et al., 2013; Nolet, 2009) are those that are drivers of a knowledge economy. This is because, a knowledge economy does not only sustain the indicators of sustainable development, but also ensure that the index of sustainable development indicators are constantly measurable and observable. Figure 1 below shows the linkage in a schema of sustainable development indicators.

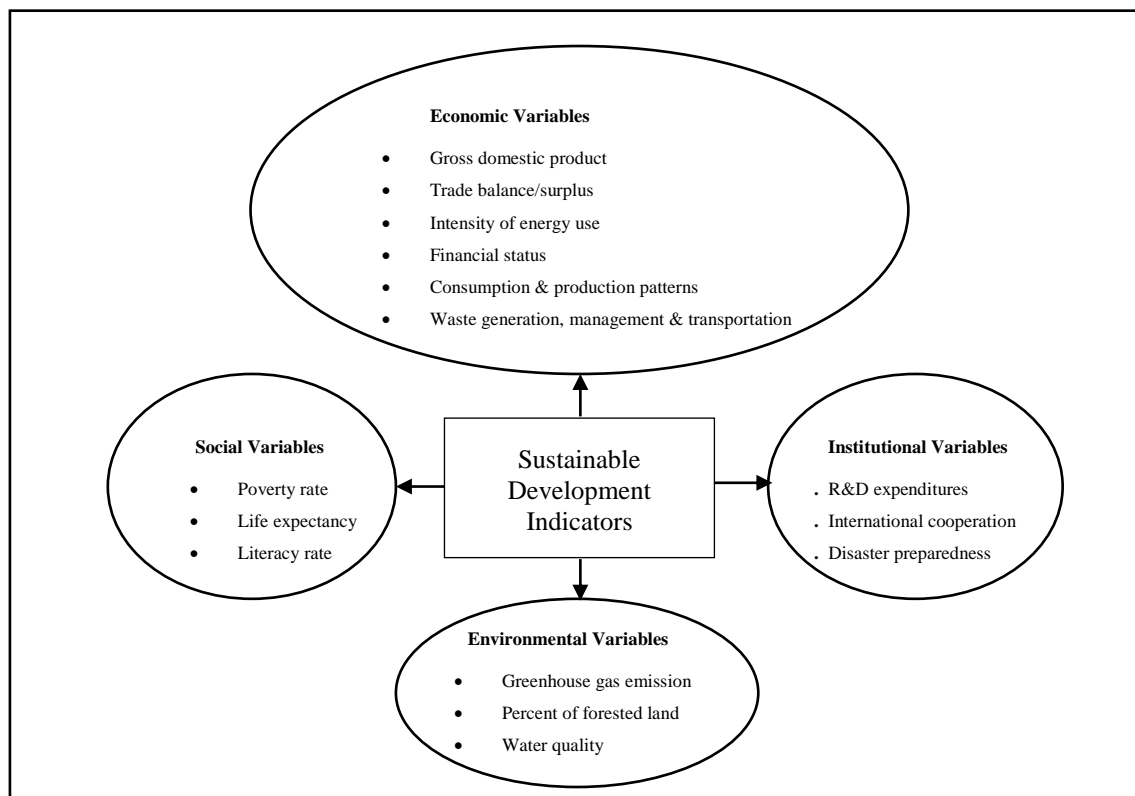


Figure 1. Index of Sustainable Development Indicators

The index of sustainable development indicators above provides a measure of defining a knowledge economy in relations to sustainable development. Literacy education is basic to the achievement of economic success which is increasingly based on the effective utilization of intangible assets such as knowledge, skills and innovative potentials as the key resource for competitive advantage. The term knowledge economy is used in this context to describe the emerging economic structure which Smith (2000) noted that, from various arguments, we are moving towards a new “knowledge based economy” or “knowledge society in which the role and significance of knowledge as input to economic processes has fundamentally changed.

In a related submission the OECD (1999) conceptualized knowledge economy as “those which are directly based on the production, distribution and use of knowledge and information. This is where literacy education for sustainable development is central to our discourse. It is plausible to posit that, knowledge economy is a system of production and consumption that is based on intellectual capital. In this stance, without literacy, knowledge cannot be developed, acquired and utilized for the development of any type of economy. Whether less-developed, developing and developed economies, literacy education is a critical factor to the changing dynamics in the index of sustainable development. As such, literacy education enhances the creation, acquisition and utilization of knowledge which is then translated into overall sustainable development indicators in the society.

The final issue of interest in this study is that, literacy is basic in andragogical context to facilitating citizen’s value re-orientation and attitudinal change for the acquisition of vocational and functional skills and knowledge that are beneficial to the individual and collective drive for a literate society, as well as for attainment of sustainable

development goals. The link between literacy education and the attainment of sustainable development goals (SDGS) by 2030 is evident in figure 2 below.

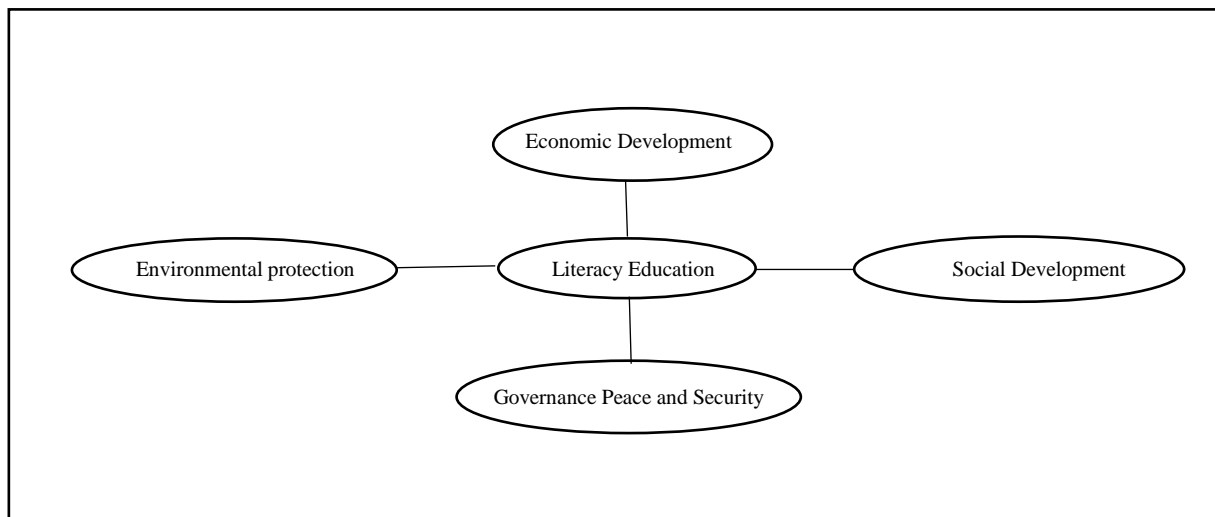


Figure 2. Literacy: a driver for sustainable development (Source: UNESCO, 2016)

In this respect, the 17-point sustainable development goals (SDG) as reported in the New York Times (2015) indicates that, literacy education is central to decrease vulnerability goals (see goals: 1,2,3,4,5,6,7,10,16) and increase sustainability goals (see goals: 8,9,11,12,13,14,15,17). In other word, through literacy education, nine goals which are aimed at decreasing vulnerability and eight goals geared at increasing sustainability can be attained. Literacy education is an essential factor for changing orientation towards active participation in activities or actions to decrease individual and community's vulnerability as well as increasing people's capacity to sustainability in a knowledge driven system.

6. Conclusion and Recommendations

Developing literacy education through massive investment in human capital is the first step in enhancing sustainability literacy. There are two mindsets on the attainment of the 17-point sustainable development goals. First, is on decreasing human vulnerability with focus on nine goals. Second, is on increasing sustainability with focus on eight goals. Literacy education on the environment, production, preventative actions, personal income generation and improved human capacity, social justice through the sustenance of democratic institutional structure among others, will enhance sustainable development in any knowledge economy. It is recommended that; sustainability of literacy education should be part of public policy instruments to promote sustainable development. Second, for literacy education to drive knowledge economy it must be futures, values, systems, and strategic thinking respectively to ensure sustainable development

References

- Annan, K. (2005). *Literacy and sustainable development*. Bangkok: UNESCO.
- Bertschy, F., Kinzli, C., & Lehmann, M. (2013). Teachers' competencies for the implementation of educational offers in the field of education for sustainable development. *Sustainability*, 5, 5067-5080.
- Bhola, H.S. & Gomez, S.V. (2008). *Signposts to literacy for sustainable development complementary studies*. Hamburg: UNESCO.
- Bhola, H.S. (1984). A policy analysis of adult literacy promotion in the third world: An accounting of promises made and promises fulfilled. *International Review of Education*, 30(2), 249-264.
- Brinkley, I. (2006). *Defining the knowledge economy. Knowledge economy programme report*. London: The Work Foundation.
- Drucker, P. (1998). From capitalism to knowledge society. D. Neef (ed). *The Knowledge economy*. Wobum M.A. Butterworth.
- Hussen, A. (2004). *Principles of environmental economics*. New York: Routledge.
- Nolet, V. (2009). Preparing sustainability-literate teachers. *Teachers College Record*, 111(2), 409-422.
- OECD (1999). *The knowledge-based economy. A set of facts and figures*. Parris: OECD

- OECD. (2012). Education in the Post-2015 Development Agenda: Draft Synthesis Report of the Global Thematic Consultation on Education (March draft). <http://www.uis.unesco.org/Education/Documents/envisioning-education-post-2015-development-agenda-execsum.pdf>
- Oghenekohwo, J. E. (2013). Adult learning in the context of comparative higher education. *Procedia: Social and Behavioural Science*, 106, 338-347.
- United Nations (1987). Report of the World Commission on Environment and Development: Our Common Future, Retrieved from <http://www.un-documents.net/wced-ocf.htm>.
- Smith, K. (2000). What is the knowledge economy? Knowledge-intensive industries and distributed knowledge bases. Prepared as part of the project innovation policy in a knowledge-based economy. Commissioned by the European commission. Oslo: Step Group.
- Stibbe, A. & Luna, H. (2009). Introduction. In A. Stibbe & H. Luna (Eds), *The Handbook of sustainability Literacy Skills for a changing World* (pp. 9-16). Cornwall, UK: Green Books Ltd.
- Tillbury, D. (2011). Education for sustainable development. New York: UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0019/001914/191442e.pdf>
- UNDP (2001). *Human development report: Marking new technologies work for human development*. New York/Oxford: Oxford University Press.
- UNESCO (2006). Education Today: *The newsletter of UNESCO's education sector*. No. 16 February- Mary, p. 7
- UNESCO (2012). Education and Skills for Inclusive and Sustainable Development. http://www.un.org/millenniumgoals/pdf/Think%20Pieces/4_education.pdf
- UNESCO (2012). Regional High-Level Expert Meeting (9-11 May). Towards EFA 2015 and Beyond-Shaping a New Vision of Education. <http://www.unescobkk.org/fileaomin.user>
- United Nations Development Group. (2013). The Global Conversation Begins. Emerging Views for a New Development Agenda. <http://www.worldwewant2015.org/the-global-conversation-begins>.
- United Nations Education, Scientific and Cultural Organisation (2000). Education for sustainable development. Bangkok: UNESCO.
- United Nations Education, Scientific, and Cultural Organization. (2004). United Nations decades of education for sustainable development: Draft international implementation scheme. Retrieved from http://portal.unesco.org/education/en/ev.php-URL_ID=36025&URL_DO=DO_TOPIC&URL_SECTION=201.html and http://www.unesco.org/education/tls/mods/theme_a/popups/mod01t05s01.html
- United Nations (2013). A Renewed Global Partnership for Development. http://www.un.org/en/development/desa/policy/untaskteam_undf/glob_dev_rep_2013.pdf
- Warren, A., Archambault, L., & Foley, R. W. (2014). Sustainability education framework for teachers: developing sustainability literacy through futures, values, systems and strategic thinking. *Journal of Sustainability Education*, 6(4), 23-28.
- Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: a reference framework for academic program development. *Sustainability Science*, 6(2), 203-218.