

GENDER EQUALITY AND SUSTAINABLE EDUCATION IN NIGERIA

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Abstract: The rights, dignity and capability of women cannot be ignored if the future of the generation yet unborn is to be sustained. Nigeria as a country has in the past decades relegated women in all facets of decision making including political and social life because the society subjected them under the leadership and authority of the male counterpart. Given the realization of the potential of women in this dispensation, all the effort to address this disparity has not achieved desired result because women are still not well represented in the labour force, politics and decision making. They are over-burden by unpaid services especially house chores and nursing which provided them little or no opportunity to participate actively in the society. It is against this background that this study examines the relationship between gender equality and sustainable education. It specifically investigates the effect of graduate turn-out on sustainable education and examines the effect government educational financing on sustainable education in Nigeria. The study follows descriptive research design and secondary data from World Bank Development Index (WDI) over the period of 2000 to 2017 was used in the analysis. Descriptive analysis and empirical analysis using regression analysis were conducted. The result of FMOLS regression showed that gender equality and government educational financing exert a significant negative effect on sustainable education in Nigeria, while income inequality does not showed a significant effect on sustainable education in Nigeria. The study submitted that gender equality have a significant negative effect on sustainable education in Nigeria. Among others, the need to redesign the educational system from elementary level in its entire curriculum planning to incorporate the agenda of sustainable education was recommended. The objectives, teaching and instruction methods, text books' content and evaluation, should be redirected towards sustainability with emphasis on its social and environmental aspects.

KeyWords: Gender Equality, Sustainable Education, Men, Women, Disparity.

Introduction

The most important issue in the present dispensation is how to sustain the planet's resources, while developing wealth and well-being for a growing population. This goal is captured under the framework of the concept of sustainable development (SD). According to World Commission on Environment and Development (2013) sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The United Nations (1987) recognized education as a basic component of human development; it is the single most important means for empowerment and sustained improvement in all well-being. Many international human right bodies consider education as a fundamental human right (Nnokami & Sulei, 2017). The improved ability to educate is an important ingredient for sustainable development. Education for sustainable development means including key sustainable development issues into teaching and learning; for example, climate change, disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption. Education for Sustainable Development consequently promotes competencies like critical thinking,

imagining future scenarios and making decisions in a collaborative way” (UNESCO, 2015).

Education for sustainable development ESD is based on the principles and values that underlie sustainable development SD, and it deals with the four dimensions of sustainability which are environment, society, culture and economy (Kanbar 2012). It aims to help people to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions. Thus, education and knowledge about sustainability play an important role in the development of positive attitudes towards sustainability (Watling & Zhou, 2011). As such, the education system, through the school curriculum now focused on fostering environmental literacy, attitudes and values that go beyond a mere understanding of environmental problems (Flogaiti, 2006). Also, in order to sustain the future of generation yet unborn, the rights, dignity and capability of women cannot be ignored.

Nigeria as a country has in the past decades relegated women in all facets of decision making and political and social life because the society subjected them under the leadership and authority of their male counterpart. Given the realization of the potential of women in this dispensation, all effort to address this disparity has not achieved desired result because women are still not well represented in the labour force, politics and decision making. Even in the education settings, only few women are taken active participation as all facet of educational institution and decision making is dominated by men. They are over-burden by unpaid services especially house chores and nursing which provided them little or no opportunity to participate actively in the society. Another challenge facing Nigeria and making it difficult for good quality education capable of bringing about sustainable development is inadequate funding by federal, state and local governments to the extent that funding has been in response to conditionalities imposed by international financial institutions (IFTs) (Nnokami and Sulei, 2017).

Existing studies on sustainable development across the world is sparse because it is a new developmental phenomena of our dispensation. However, several studies have examine the factors that engender sustainable education focusing on factors such as teachers variables, school funding, school climate and environment, student variables and student related factors. To the best of authors’ investigation studies have not examines the implication of gender issues on sustainable development especially in the Nigerian context. Against this background, this study addressed this gap to determine the implication of gender equality on sustainable education in Nigeria. The study specifically examines the relationship between gender equality and sustainable education, investigate the effect of graduate turn-out on sustainable education and examine the effect government educational financing on sustainable education in Nigeria. This study provides some important empirical justification for policies aimed at achieving sustainable education through the control gender disparity in education. The study would educate the citizens, especially young generations within the formal schooling system on the benefit and the hope in education for sustainable development.

Literature Review

Education is a basic component of human development; it is the single most important means for empowerment and sustained improvement in all well-being. Sustainable education means learning that promotes sustainable development (Lipscombe 2008).

Traditionally, sustainable development is considered in terms of three main pillars. First the Environmental sustainability refers to the ability of the environment to continue to function properly indefinitely and to minimize environmental degradation. Secondly Economic sustainability refers to the way to achieving economic growth as well as making use of the globe resources in a sustainable way. Thirdly Social sustainability refers to the actions and the effort to promote development that does not lessen the stock of social and human resources as well as maintain harmonious communities (Ramzy 2012). According to Kanbar (2012), education for sustainable development ESD is based on the principles and values that underlie sustainable development SD, and it deals with the four dimensions of sustainability which are environment, society, culture and economy (Kanbar 2012). Gender difference result from the differences in the responsibilities and duties of men and women and the implication such gap on the economic, political and social life

Emile Durkheim, allegedly the founding father of sociology of education in his functionalist theory, sees education as a social fact “external to individual and constraining his/her behavior” (King, 1983). While examining their usefulness to society rather than individuals, social facts also have to find an appropriate way to serve “the general needs of social organism” (Blackedge& Hunt, 1985). A group of intellectuals from the Frankfurt School propounded Critical Theory introduced the concept of “critical perspectives” in the field of education (Pinar and Bowers, 1992). The theory have three major concerns: mapping injustices in education, tracing those injustices to their source, seeking and proposing remedies to those injustices. They began to work by defining inequalities in education. Working class kids or certain minority groups have been stayed at the center of discussions because of their relatively low performance in education in comparison to their white middle or upper class counterparts (Gibson, 1986).

Against the analytical background, Dewhurst and Pendergast (2011) reported the contribution of home economics to sustainable development education as part of the school curriculum for students aged 11-18 years, in a number of cultural contexts. The data reveals that the teachers in the study considered sustainable development to be an important issue and the formal home economics curricula made significant contributions to the education of this topic. In another study, Özgü (2017) investigate pre-service science teachers’ sustainable environmental education attitudes and the factors affecting them in terms of some variables (gender and grade level). The analysis results revealed that sustainable environmental education attitudes frequency of the pre-service teachers is at the medium level. It was also found that the sustainable environmental education attitudes of the pre-service teachers do not vary significantly by gender; yet, they were found to be varying significantly depending on the grade level variable. Similarly, Mahat, Hashim, Nayan, Saleh and Norkhaidi (2018) examine the levels of education for sustainable development (ESD) knowledge among students in secondary schools according to zones in Malaysia by using GIS mapping. The study results showed that in general the levels of sustainable development education knowledge of secondary school students in all zones were high for ESD content knowledge while moderate for environmental education knowledge and health knowledge. Meanwhile, the GIS map clearly indicates the levels of knowledge among students seemed high in the north zone, central zone and east Malaysia zone, at moderate levels in the south zone, and low in the east coast zone. Hanifah, Shaharudin, Mohmadisa and Yazid (2013) investigate whether ESD might have the intended effects on teacher education students. The study find positive effects of ESD on almost all attitudes

and perceptions, including e.g., personal responsibility in relation to SD and willingness to contribute to SD, while there is no noticeable effect in the control group.

Methodology

This study follows a descriptive research design. The choice of this research design is because the design is a quasi-experimental study that helps to examine how an independent variable, present prior to the study in the participants, affects a dependent variable. The model used in this study follows education production function while relying on the model used in the study conducted by Ogundari and Aromolaran (2014) to modeled the relationship between gender equality and household sustainable education where the dependent variables is household welfare proxy by households’ socioeconomic and demographic variables (age; household; gender; household head occupation and location) while the independent variables are educational attainments proxy by educational level of household heads (such as non-western (religious education), primary, secondary, tertiary, and postgraduate education). In this study, sustainable education SED proxy by graduate turn-out since it measure the quality of the educational system (Rode, 2006, OECD, 2009) is the dependent variable while gender equality GEQ proxy by gender equality index, income inequality IEQ measure by income distribution and government educational financing GEF proxy by government expenditure on education in Nigeria are the independent variable. The model is specified as follows:

$$SED = f(GEQ, IEQ, GEF) \tag{1}$$

The transformation of the above functional relationship into an econometric model yield equation (5)

$$SED = \beta_0 + \beta_1 GEQ + \beta_2 IEQ + \beta_3 GEF + \mu_t \tag{2}$$

The study used annual time series data covering 19 years period from 2000 to 2017. The choice of this short span period is connected with the fact that, data were unavailable on gender equality prior to the years covered in this study. The data used for analysis are compiled from the World Bank (World Economic Indicators). In the estimation both the Fully Modified Ordinary least squares (FMOLS) cointegration approach was employed. The choice of this technique was because the method modifies least squares to account for serial correlation effects and for the endogeneity in the repressors that result from the existence of a cointegrating relationship. When there is some cointegration in the system, FMOLS estimation has a limit theory that is normal for all of the stationary coefficients and mixed normal for all of the nonstationary coefficients.

Empirical Results

The result of the Jarque-Bera test of normality to establish the nature of the distribution of the data is presented in table as follows.

Table 1: Descriptive Statistics

	SED	GEQ	IEQ	GEF
Mean	32.19524	1443.526	9.028159	95.17644
Median	34.70000	1520.000	8.793968	92.90000

Maximum	43.80000	1740.000	22.28820	113.0000
Minimum	17.00000	802.0000	0.076487	82.80000
Std. Dev.	7.288833	255.4735	8.389175	10.51272
Skewness	-0.528754	-1.018197	0.253734	0.458153
Kurtosis	2.283578	3.509657	1.577729	1.765195
Jarque-Bera	1.291670	3.488601	1.805299	1.871785
Probability	0.524225	0.174767	0.405494	0.392236
Sum	611.7096	27427.00	171.5350	1808.352
Sum Sq. Dev.	956.2875	1174801.	1266.809	1989.310
Observations	19	19	19	19

Source: Author, 2023

The result of the descriptive analysis as presented in Table 1 based on the values of the Jarque-Bera statistics showed that all the variables in the data set are not normally distributed since their p-values were not statistically significant at 5% level of significance. Hence, the result shows that sustainable education, gender equality, income inequality and government educational financing are not normally distributed. In the empirical analysis we employed Full Modified Ordinary least squares (FMOLS) cointegration approach to estimate our model on the relationship between gender equality and sustainable education in Nigeria as presented in table 2:

Table 2: Fully Modified OLS Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GEQ	-0.029055	0.003638	7.985934	0.0000
IEQ	0.019354	0.009164	-2.112078	0.0546
GEF	-1.25E-05	3.33E-06	3.751975	0.0024
C	6.275087	0.125751	49.90076	0.0000
R-squared	0.555082			
Adjusted R ²	0.452409			
Long-run variance	0.004440			

Source: Author, 2023

The result obtained from the analysis at 5% level of significance showed that gender equality ($\beta=-0.029055$, $t=7.985934$, $p<0.05$) and government educational financing ($\beta=0.0000125$, $t=3.751975$, $p<0.05$) exert a significant negative effect on sustainable education in Nigeria, while income inequality ($\beta=-0.019354$, $t=-2.112078$, $p>0.05$) does not showed a significant effect on sustainable education in Nigeria. The result showed that a 1% increase in gender equality will lead to about 3% decrease in sustainable education in Nigeria while a 1% increase government educational financing will lead to about 0.0013% decrease in sustainable education in Nigeria. The implication of this result is that gender equality and government education hinders the realization of sustainable education goals in Nigeria. The implication of this result is that the gap between male and female in education and access to resources as well as the poor level of government educational funding impede sustainable education in Nigeria. .

Discussion, Conclusion and Recommendations

The study examined gender equality and sustainable education in Nigeria. It specifically examines effect the relationship between gender equality and sustainable education, investigate the effect of graduate turn-out on sustainable education and examine the effect government educational financing on sustainable education in Nigeria. The study was based *descriptive research design* while following educational production function in the model specification where sustainable development proxy by graduate turnout was the dependent variable while gender equality, income inequality and government educational financing were the independent variables. The study used annual time series data from World Bank development index (WDI) covering the period of 2000 to 2017. In the analysis, the Fully Modified Ordinary least squares (FMOLS) cointegration approach was employed while. The result of showed that gender equality and government educational financing exert a significant negative effect on sustainable education in Nigeria, while income inequality does not showed a significant effect on sustainable education in Nigeria. The study is in line with Mahat, Hashim, Nayan, Saleh and Norkhaidi (2018) on the levels of education for sustainable development (ESD) knowledge among students in secondary schools according to zones in Malaysia by using GIS mapping. The study results showed that in general the levels of sustainable development education knowledge of secondary school students in all zones were high for ESD content knowledge while moderate for environmental education knowledge and health knowledge. This study also gave credence to the findings in the study conducted by Hanifah, Shaharudin, Mohmadisa and Yazid (2013) on whether ESD might have the intended effects on teacher education students. The study find positive effects of education for sustainable development on almost all attitudes and perceptions, including e.g., personal responsibility in relation to sustainable development and willingness to contribute to sustainable development, while there is no noticeable effect in the control group.

The study submitted that gender equality have a significant negative effect on sustainable education in Nigeria. Also, government educational financing affects sustainable education negatively. Thus it can be inferred that the gap between male and female in education and access to resources as well as the poor level of government educational funding impede sustainable education in Nigeria. The following recommendations have been made based on the findings of the study: There is a need to redesigning the educational system from elementary level in its entire curriculum planning elements to incorporate the agenda of sustainable education. The objectives, teaching and instruction methods, text books' content and evaluation, should be redirected towards sustainability with emphasis on its social and environmental aspects equally. Also, there is the need for the introducing the course of sustainable development in teacher education program to develop positive attitudes of prospective teachers

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