

Strategies for Promoting Quality of Secondary School Resources towards Sustainable Development Goal 4 in Nigeria

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Abstract

The study examined the quality of school resources and strategies for promoting Sustainable Development Goal 4 of secondary education in Cross River State, Nigeria. The study had four research questions and two null hypotheses. A descriptive survey research design was adopted. The population comprised principals and teachers in the 286 public secondary schools in Cross River State. A sample of 383 respondents (115 principals and 268 teachers) was drawn through a multi-stage sampling technique. A questionnaire developed by the researchers was used to elicit information from the respondents. The instrument was validated by three experts. The reliability of the instrument, determined using Cronbach alpha gave an index of 0.88 and 0.85 for clusters I and II, respectively, with an overall index of 0.87. Data obtained were analyzed using mean and standard deviation in answering the research questions and an independent sample t-test for testing the null hypotheses at the 0.05 level of significance. The findings showed that the quality of school resources was low in Cross River State. It also revealed that the strategies adopted for promoting sustainable development in secondary education were, to a low extent, effective. Based on the findings, recommendations for improvement were made.

Keywords: Quality; School Resources; Strategies; Sustainable Development 4; Secondary Education.

Introduction

The 2030 Agenda for Sustainable Development, endorsed by all UN Member States in 2015, serves as the universal blueprint for a progressive society. The Sustainable Development Goals (SDGs) on the agenda demands for immediate action from both developed and developing nations in a global cooperation. There are 17 SDGs in all (United Nations, 2015). Given the crucial role that education plays in promoting sustainable national development worldwide, the SDG 4, which has 10 targets; seven outcome targets and three means of implementation, can be seen as a structured approach to ensuring universal access to education for sustainable development in Nigeria and throughout the world. The targets include: universal primary and secondary education; early childhood development; universal pre-primary education; equal access to technical/vocational and higher education; and relevant skills for decent work. Others include gender equality and inclusion, universal youth literacy, and education for sustainable development and global citizenship. The three means of implementation include effective learning

environments, scholarships, and an increasing supply of qualified teachers (United Nations, 2015).

Generally, SDG 4 is intended to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all and has been agreed upon as the universal education goal that is geared towards sustainable development (United Nations Educational Scientific and Cultural Organization, UNESCO, 2017). The goal therefore supports the reduction of disparities and inequities in education, both in terms of access and quality (United Nations, 2023). It also seeks to ensure that by 2030, all learners acquire the knowledge and skills needed to promote sustainable development.

Sustainable development has been defined as the development pattern that encourages and addresses the plethora of problems of the present society while making adequate plans without compromising the future generation's needs (Agi, 2009; Enemi, Ukaigwe, & Nwafor, 2016). It is also viewed by Mbakwem (2016) as the type of development that meets the needs of the present without compromising the ability of future

generations to meet their own needs. It is a term that describes the process of improving the range of opportunities that will enable individuals and communities to achieve their aspirations and full potential over a sustained period of time while maintaining the resilience of economic, social, and environmental systems (Manafa, 2020). Important to note, therefore, is that to achieve sustainable development, there is a need for quality education at all levels of the Nigerian system of education.

Simply put, education refers to the process by which people acquire knowledge and skills. According to Mohanty and Dash (2018), it is the total process of human learning through which knowledge is imparted and attitudes and skills are developed in learners. It is also considered the process of equipping individuals with worthwhile knowledge, attitudes, values, and skills to become useful members of society (Madsen, 2013). In essence, education is the process and act of equipping individuals with knowledge, skills, and abilities that will enable them to contribute meaningfully to the development of the society in which they live.

The importance of education to sustainable development therefore cannot be overemphasized. According to Ivowi (2019), education enables individuals to acquire information, skills, and a change in behaviour in order to make considerable contributions to the improvement of society. Zenelajm (2013) also asserted that education prepares individuals for successful living by equipping them with the necessary knowledge, skills, competencies, values, and morals that fit the individual into society. Perhaps this is why the Federal Republic of Nigeria (2013) recognised education as an instrument for national development and social change as it ensures the development of appropriate skills, mental, physical, and social abilities and competencies to empower the individual to live and contribute positively to society. The dynamic nature of education helps meet the rapid changes in society. This therefore implies that all levels of education—primary, secondary, and tertiary—need to respond swiftly to emergent developmental changes globally, towards the attainment of the sustainable development goal four (SDG 4).

The importance of secondary education in the Nigerian educational system, in particular, cannot be understated. The Federal Republic of Nigeria (FRN, 2013) defines secondary education as the education children get after completing primary school but prior to beginning a postsecondary education programmes. It

went on to say that secondary education has two main objectives: preparing students for higher education and preparing them for meaningful living in society. Accordingly, secondary education has been defined by Bashar and Yasin (2020) as the type of education received by individuals between the ages of 11 and 17 years, following the successful completion of basic education (primary and junior secondary education), but prior to tertiary level education, in order to prepare them for useful living within society and higher education. It is education that is geared towards catering for the differences in talents, opportunities, and future roles to provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial, and economic development (FRN, 2013). Thus, there is a need to maintain quality secondary education in Nigeria to promote sustainable development. This, to a large extent, depends on the quality of school resources employed.

School resources encompass facilities such as the school's plants, equipment, building, and furniture, such as tables and chairs, which enable workers to perform their work effectively. Dehar and Faize (2011) explained that school resources are print and non-print items that are designed to be used for imparting knowledge or facilitating the teaching and learning process. Usman (2016) also described school resources as all the human, financial, material, and non-material resources, as well as audio, visual, and audio-visual resources used in facilitating the teaching and learning process. From these assertions, school resources can be considered as all the available physical facilities, human, material, and non-material resources within a school setting that are used to ensure effective teaching and learning processes.

In most public secondary schools in Nigeria, it is pertinent and unfortunate to note that the quality of the school resources is observably poor. This however differ by the location where a school is located. In a study by Ajayi, and Faremi (2006), on the influence of school type and location on resource availability and pupils' learning outcome in primary schools in Ekiti State, Nigeria, it was revealed that urban and rural public primary schools significantly differed in terms of the quality of available school resources. Akindutire and Ajayi (2007) and Adegbite (2007) separately asserted that inadequate funding is the major challenge that accounts for the poor quality of secondary school resources in Nigeria. According to Oladipo (2009), a visit to many public secondary schools, especially those in rural areas show that some students will have to stand

or squat as a result of congestion in the classrooms, which hinders proper learning from taking place. Onyeachu (2012), lamented that in most secondary schools, the few teachers available are given a heavy workload to the extent that, in most cases, teachers are compelled to teach subjects that are not their areas of specialisation. Furthermore, Usman (2016) noted high concern about the poor state of physical assets like classrooms, staff offices, health centres, well-equipped laboratories, libraries, and instructional materials such as textbooks, visual aids, charts, maps, chalkboards, and whiteboards, among others. Usman further noted that it is common to see chairs and tables littered everywhere in the school premises, broken windows and doors, dilapidated buildings with cracked walls and leaking roofs, exposed electrical fittings, unkept bushes and lawns, as well as a picture of total neglect of the school resources, especially, schools located in rural areas. All these may certainly hamper the attainment of SDG 4 by 2030.

Existing literature has, however, identified some of the potential strategies for promoting education as a means of achieving sustainable development. The strategies include regular evaluation, supervision, inspection, monitoring, and quality control (Adegbesan, 2010; Okafor, Ohamobi, & Manafa, 2021), which are rarely done in public secondary schools. The United Nations (2015) highlighted some of the strategies to include building and upgrading education facilities that are child, disability, and gender sensitive and to provide safe, non-violent, inclusive, and effective learning environments for all, as well as increasing the supply of qualified teachers. In addition, Usman (2016) suggested proper management of human, physical, material, and financial resources as potential strategies for promoting the quality of school resources. However, literature on strategies for promoting the quality of secondary school resources in Cross River State is grossly lacking. This is in spite of the deteriorating nature of school resources in public secondary schools in the State and the target of achieving SDG 4 by 2030. Hence, the aim of this paper was to find out the strategies for promoting the quality of secondary school resources towards Sustainable Development Goal 4 in Cross River State, Nigeria. Specifically, the study determined the:

1. quality of school resources in public secondary schools in Cross River State;
2. extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State;

3. influence of school location on the quality of school resources in public secondary schools in Cross River State; and
4. influence of school location on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State.

Research Questions

The following research questions were posed to guide the study:

1. What is the quality of school resources in public secondary schools in Cross River State?
2. What is the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State?
3. What is the influence of school location on the quality of school resources in public secondary schools in Cross River State?
4. What is the influence of school location on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State?

Hypotheses

The following null hypotheses were postulated for the study, and were tested at 0.05 level of significance.

- H0₁:** There is no significant influence of school location on the quality of school resources in public secondary schools in Cross River State.
- H0₂:** There is no significant influence of school location on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State.

Methods

The study utilized a descriptive survey research design. This is because the researchers were interested in collecting data on and describing in a systematic manner the strategies for promoting the quality of secondary school resources towards Sustainable Development Goal 4, which made the design more appropriate. The study was carried out in Cross River State, Nigeria. The study population was made up of all the principals and teachers in the 286 public secondary schools in the state. A sample of 383 (115 principals and 268 teachers) respondents (176 from urban schools and

207 from rural schools) was drawn for the study through a multi-stage sampling procedure. An instrument titled "Strategies for Promoting the Quality of Secondary School Resources Questionnaire (SPQSSRQ), developed by the researchers, was used for data collection.

The questionnaire had two sections (A and B). Section A elicited the demographic information of respondents (such as school code and school location—urban or rural), while Section B contained 25 items arranged in two clusters (I and II). Cluster I had 10 items that elicited data on the quality of secondary school resources, while Cluster II had 15 items that sought data on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools. For cluster I, the respondents were requested to express their level of agreement or otherwise with each of the items based on the modified four-point Likert-type scale with response options ranging from strongly agree (SA), agree (A), disagree (D), and to disagree (SD) with numerical values of 4, 3, 2, and 1, respectively. Whereas, for cluster II, the respondents were required to express their opinions following a scale with response options that ranged from Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE), also with numerical values of 4, 3, 2, and 1, respectively.

The instrument was subjected to face-to-face validation by three experts: one each from measurement and evaluation, educational administration and planning, and curriculum studies. The validators were requested to scrutinize the items of the instruments in terms of relevance to the purpose of the study, language clarity, and suggestions for improving the quality of the instrument. Their corrections and suggestions, in terms

of the grammatical structure of the items, contributed to the quality of the final version of the instrument.

The reliability of the instrument was ascertained after trial-testing it on a sample of 30 respondents, comprising 15 principals and 15 teachers from public secondary schools that were not sampled for the actual study. The data obtained were used to establish the internal consistency of the items of the study's instrument. The reliability coefficients (r) obtained using Cronbach's alpha method were 0.79, 0.77, and 0.83 for clusters I–III, respectively, with an overall reliability index of 0.81, which showed that the instrument was good for the study. The instrument was administered to the respondents and retrieved immediately upon completion. The administration of the questionnaire was done by the researchers and five research assistants who were sufficiently briefed on the modality. This was done during break periods in the sampled schools.

The collected data were sorted and coded in the IBM Statistical Package for the Social Sciences (SPSS) and analyzed using the mean and standard deviation to answer the research questions. For research questions one and three, the mean values were interpreted based on a criterion mean value of 2.50 and above as high and a mean below the criterion as low. The interpretation of the mean values for research questions two and four was based on the real limit of numbers as follows: very high extent (VHE) = 3.50–4.00, high extent (HE) = 2.50–3.49, low extent (LE) = 1.49–2.49, and very low extent (VLE) = 1.00–1.49. The data were also analyzed using the t-test to test the null hypotheses at the 0.05 level of significance. The decision rule for testing the hypotheses was to reject the null hypotheses (H_0) if the exact probability value associated with the t-value is less than 0.05 ($p = 0.05$); otherwise, do not reject the hypotheses.

Results

The results arising from the analysis of this study's data are presented below in line with the research questions and null hypotheses for the study.

Table 1: Mean and standard deviation on the quality of school resources in public secondary schools in Cross River State (n=383)

S/N	Item Statements	Mean	Standard Deviation	Decision
	The following school resources are of good standard in my school:			
1.	Building facilities (staff offices and classrooms)	2.09	0.47	D
2.	Furniture (tables and chairs)	2.18	0.53	D
3.	Audio-visual resources	2.02	0.43	D
4.	Human resources (principals, teachers, non-teaching staff etc)	2.04	0.65	D
5.	Health care facilities	1.46	0.56	D
6.	Instructional materials (e.g textbooks, visual and audio-visual aids, charts, maps, chalkboards, and whiteboards etc)	2.23	0.90	D
7.	School environment	2.14	0.51	D
8.	Toilet facilities	1.97	0.59	D
9.	Laboratories	2.10	0.68	D
10	Libraries	2.06	0.50	D
Grand Mean		2.05	0.58	D

Note: n = Number of Respondents, D = Disagree

The result in Table 1 shows that the mean responses for all the items (1–10) were below the criterion of 2.50, which implies that the respondents disagreed with the items. The grand mean ($M = 2.05$, $SD = .58$) also fell below the criterion mean. This can be interpreted as indicating that the various school resources in public secondary schools in Cross River State are of low quality.

Mean and standard deviation on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State (n=383)

S/N	Item Statements	Mean	Standard Deviation	Decision
	Extent of:			
1.	Recruitment of qualified teachers.	2.23	0.50	LE
2.	Regular retraining of teachers to meet the needs of the society.	1.38	0.69	VLE
3.	Building school facilities (classrooms, toilets, libraries, laboratories e.t.c.) of high standard.	1.84	0.43	LE
4.	Regular upgrading of learner-sensitive school resources.	2.15	0.62	LE
5.	Providing safe/non-violent environments for effective learning of all individuals.	1.44	0.51	VLE
6.	Ensuring that school resources are gender-sensitive.	1.47	0.59	VLE
7.	Regular reform of the secondary school curriculum.	2.18	0.60	LE
8.	Providing sufficient human resources in the school.	2.07	0.65	LE
9.	Provision of standard health facilities within the school.	1.46	0.55	VLE
10	Provision of scholarships/financial assistance to students.	1.49	0.75	VLE
11	Increasing budgetary allocation to education sector to make available adequate funds for procuring necessary school resources.	1.45	0.66	VLE
12	Regular monitoring and evaluation of school resources.	1.48	0.47	LE
13	Regular supervision/inspection of school resources.	2.37	0.53	LE
14	Provision of school resources that ensure inclusive learning by learners of different abilities/disabilities.	1.43	0.61	VLE
15	Provision of audio-visual resources electronic resources.	2.02	0.45	LE
Grand Mean		1.76	.57	LE

Note: n = Number of Respondents, interpretation; Low Extent (LE) = 1.49–2.49, Very Low Extent (VLE) = 1.00–1.49

The result in Table 2 indicates that the mean ratings for most of the items (2, 5, 6, 9–12, and 14) were within the mean range of 1.00–1.49, which signifies a very low extent (VLE) of adoption of the strategies represented by the items. Other items (1, 3, 4, 7, 8, 13, and 15) had mean ratings that were within the mean range of 1.49–2.49, which implies that the strategies

represented by the items are adopted to a low extent (LE). The grand mean ($M = 1.76$, $SD = .57$) also fell within the same mean range (1.49–2.49). Therefore, it can be interpreted that the various strategies for promoting the quality of school resources are adopted to a low extent in public secondary schools in Cross River State.

Table 3: Mean, standard deviation and t-test analysis of the influence of school location on the quality of school resources in public secondary schools in Cross River State

School location	N	\bar{X}	SD	t-value	df	Sig.	Dec
Urban	176	2.13	0.43	3.539	381	.000	S
Rural	207	1.97	0.45				

Note: \bar{X} = Mean, SD = Standard deviation, df = degree of freedom, Sig. = Associated probability value, S = Significant

The result in Table 3 shows that the grand mean values for respondents from schools in urban locations ($M = 2.13$, $SD = .43$) and those for respondents from schools in rural locations ($M = 1.97$, $SD = .45$) were low and fell below the criterion mean of 2.50. This indicates that they both disagreed with the items on the quality of school resources in public secondary schools. This, in other words, implies that the quality of the various school resources in both urban and rural public secondary schools in Cross River State is low.

The result in Table 3 also shows that a t-value of 3.539 at a degree of freedom of 381 and an associated probability (sig.) value of .000 were obtained from the data analysis. Since the associated probability (sig.) value of .000 was less than the 0.05 level of significance at which the result was being tested, this implies that the result is significant. Therefore, the null hypothesis was rejected, and the inference drawn was that there is a significant influence of school location on the quality of school resources in public secondary schools in Cross River State.

H0₁: There is no significant influence of school location on the quality of school resources in public secondary schools in Cross River State.

Table 4: Mean, standard deviation and t-test analysis of the influence of school location on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State

School location	N	\bar{X}	SD	t-value	df	Sig.	Dec
Urban	176	1.79	0.48	1.247	381	.213	NS
Rural	207	1.73	0.46				

Note: \bar{X} = Mean, SD = Standard deviation, df = degree of freedom, Sig. = Associated probability value, NS = Not Significant

The result in Table 4 portrays that the grand mean values for respondents from schools in urban locations ($M = 1.79$, $SD = .48$) and those for respondents from schools in rural locations ($M = 1.73$, $SD = .46$) were within the mean range of 1.49–2.49, which denotes that the strategies represented by the items were adopted to a low extent (LE). This implies that the extent to which the various strategies for promoting the quality of school resources are adopted in public

secondary schools in Cross River State does not differ between urban and rural schools. In essence, school location does not have a considerable influence on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State.

H0₂: There is no significant influence of school location on the extent to which the various strategies for promoting the quality of school resources are

adopted in public secondary schools in Cross River State.

The results in Table 4 also indicate that a t -value of 1.247 at a degree of freedom of 381 and an associated probability (sig.) value of .213 were obtained from the data analysis. Since the associated probability (sig.) value of .213 was greater than the 0.05 level of significance at which the result was being tested, this implies that the result is not significant. Hence, null hypothesis 2 was not rejected, and the conclusion drawn was that there is no significant influence of school location on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State.

Discussion

The study was generally aimed at examining the strategies for promoting the quality of secondary school resources towards Sustainable Development Goal 4 in Cross River State, Nigeria. The study found that the various school resources in public secondary schools in Cross River State are of low quality. This could be so because most public secondary schools in the state are poorly equipped. This finding adds credence to Oladipo (2009), who observed that many public secondary schools in Nigeria have poor quality school resources. Likewise, the finding affirms that of Usman (2016), who reported high concern about the poor state of school resources like classrooms, staff offices, health centers, well-equipped laboratories, libraries, and instructional materials such as textbooks, visual aids, and chalkboards, among others, in public secondary schools.

The study also revealed that the various strategies for promoting the quality of school resources are adopted to a low extent in public secondary schools in Cross River State. This lends support to Okafor, Ohamobi, and Manafa's (2021) who uncovered that regular evaluation, supervision, inspection, monitoring, and quality control are rarely done in public secondary schools in Nigeria. According to the study, the quality of the various school resources in both urban and rural public secondary schools in Cross River State is low and significantly influenced by school location. This agrees with Ajayi and Faremi (2006), who revealed that urban and rural public primary schools significantly differed in terms of the quality of available school resources. According to Oladipo (2009), a visit to many public secondary schools, especially those in rural areas, shows the poor quality of school resources. However, it has been uncovered that school location

does not have a considerable or significant influence on the extent to which the various strategies for promoting the quality of school resources are adopted in public secondary schools in Cross River State. This is in discordance with Okafor, Ohamobi, and Manafa (2021). The authors maintained that the uneven distribution of resources in urban and rural schools strongly determines the strategies for promoting the school's resources.

Conclusion

There is a need to improve the quality of school resources in public secondary schools in Cross River State, Nigeria, so as to attain Sustainable Development Goal 4 (SDG 4) by 2030. This could only be achieved through the adoption of the various strategies for promoting the quality of school resources in both urban and rural public secondary schools. It is therefore concluded that if SDG 4 is to be achieved by 2030, there is a need to adopt the various strategies for promoting the quality of school resources in public secondary schools in Cross River State.

Recommendations

Based on the findings, it is recommended that:

1. The government should increase budget allocations to the education sector to ensure the procurement of relevant school resources.
2. Stakeholders in education should adopt the various strategies for maintaining the quality of school resources both in urban and rural areas.

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