

Roles of Public Universities in the Achievement of Sustainable Development Goal 4 in Rivers State

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Abstract

This study investigated roles of public universities in Rivers State, Nigeria, in achieving Sustainable Development Goal 4 (SDG 4), which emphasizes inclusive and equitable quality education and lifelong learning opportunities for all. Using a descriptive survey design, the study examines the extent to which three key educational initiatives Centre for Continuing Education (CCE), Open and Distance Learning (ODL), and professional development programmes contribute to achieving SDG 4. The sample consisted of 672 respondents, including academic staff and administrators from three public universities in Rivers State. Data were collected using a validated questionnaire and analyzed using descriptive statistics and t-tests. Findings revealed that CCE programmes promote educational access for adult learners, fostering inclusivity and skill development. Similarly, ODL programmes expand access to underserved populations, offering flexible learning options and integrating technology to enhance employability. Professional development initiatives were found to improve teaching competencies, incorporate innovative teaching methods, and address educational challenges, including resource deficits. While lecturers and administrators shared similar opinions of the effectiveness of these programmes, slight differences in views were noted. The study highlighted the significant contributions of public universities in Rivers State towards achieving SDG 4 through these initiatives, despite challenges such as infrastructure deficits and resource constraints. The study concluded that public universities play an important role in promoting inclusive and quality education and recommended that expanding CCE programmes, enhancing ODL technologies, and prioritizing professional development programmes to address gaps and sustain progress. These efforts are crucial for advancing education as a basis of sustainable development in Rivers State and beyond.

Introduction

Education is an indispensable tool for individual and societal development. The Federal Republic of Nigeria (2004) in the National Policy on Education pointed out that education is an instrument per excellence for achieving national development. There is no sector of the economy where education either in its formal or informal form is not required. Adunola (2011:7) stated that “Education is a process of acquiring skills obtaining relevant knowledge and aptitudes in order to survive in this world”. Individuals, parents, groups, societies, government and even the international community expend huge sum of money because education is the key to achieving political and other socio-economic goals and objectives of different social groups in the society. This has prompted individuals and even the government to take particular interest in the education sector as a way of bringing about the needed change and development. This is responsible for different educational reforms and the introduction of various educational programmes over the years in Nigeria.

Sustainable Development Goal 4 (SDG 4) is part of the United Nations' 2030 Agenda for Sustainable Development. It focuses on ensuring inclusive and equitable quality education for all and promoting lifelong learning opportunities. SDG 4 emphasizes that education is a fundamental human right and a critical enabler for sustainable development. It aims to provide access to education for everyone, regardless of their background or circumstances, and to ensure that the education provided is of high quality and relevant to individual and societal needs.

By investing in education and lifelong learning opportunities, countries can empower individuals and communities, drive socio-economic progress, advance gender equality, promote health and well-being, and build peaceful and inclusive societies. SDG 4 serves as a catalyst for transformative change, recognizing the crucial role of education in achieving all other sustainable development goals. It emphasizes the importance of collaboration among governments, educational institutions, civil society organizations, and the private sector to ensure that education remains a priority and a driver of sustainable development efforts worldwide.

Achieving Sustainable Development Goal 4 (SDG 4) in public universities in Rivers State, Nigeria, necessitates a comprehensive approach to address various challenges and implement strategies for educational improvement and sustainability. Access to education remains a significant concern, particularly in areas where infrastructure and resources are limited. Collaborative efforts between public universities, government agencies, NGOs, and community organizations are essential to extend educational opportunities to marginalized populations. Improving the quality of education is paramount for SDG 4. Public universities in Rivers State must enhance teaching methodologies, curriculum relevance, and learning outcomes. Faculty development programmes, curriculum reviews, and technology integration can bolster teaching effectiveness and student engagement while fostering research and innovation. Infrastructure deficits, including inadequate facilities and technological resources, hinder the delivery of quality education. Investments in infrastructure development, facilitated through public-private partnerships and government funding, are necessary to create conducive learning environments and accommodate the growing student population. Ensuring the competence and professional development of faculty members is crucial. Comprehensive teacher training programmes and workshops can enhance pedagogical skills and promote student-centered learning approaches.

Public universities contribute to sustainable development by integrating sustainability principles into academic programmes, research initiatives, and campus operations. Environmental education, sustainable practices, and green technologies can minimize ecological footprints and promote environmental stewardship. Advancing SDG 4 in public universities in Rivers State requires a multi-dimensional approach involving various education stakeholders which include government institutions, academia, civil society, and the private sector. By addressing access, quality, infrastructure, teacher training, sustainability, community engagement, and equity, public universities can contribute significantly to inclusive and equitable education, fostering sustainable development (Yusuf, Ladan, Idris, & Halilu, 2013).

Public universities in Rivers State, Nigeria, helps in achieving Sustainable Development Goal 4 which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. These institutions contribute to SDG 4 through various initiatives and programmes, such as management of centres for continuing education (CCE), open and distance learning (ODL), professional development programmes, sandwich programmes, certificate courses, and postgraduate programmes as posited by (Enaoye 2018).

Managing centre for continuing education (CCE) programmes is one of the key ways public universities in Rivers State contribute to achieving SDG 4. These programmes provide opportunities for individuals who may not have had access to formal education to acquire new skills and knowledge, thereby improving their employability and socio-economic status. CCE programmes are designed to be flexible, accommodating the needs of working adults and other non-traditional learners. By offering a variety of courses, from literacy and numeracy to vocational and technical training, public universities help bridge educational gaps and promote lifelong learning (Adegbite & Lawal, 2020). This aligns with the targets of SDG 4, which emphasize inclusive and equitable quality education for all, regardless of age or background.

Open and Distance Learning (ODL) programmes are another crucial aspect of public universities' efforts to achieve SDG 4 in Rivers State. ODL provides an alternative to traditional classroom-based education, enabling learners to study at their own pace and from any location. This mode of education is particularly beneficial for those in remote or underserved areas, where access to quality education may be limited (Olaore & Alabi, 2019). By leveraging technology and innovative teaching methods, public universities can reach a broader audience and ensure that education is accessible to all. The flexibility and inclusivity of ODL programmes support the goal of providing lifelong learning opportunities, a core component of SDG 4.

Organizing professional development programmes is another way public universities in Rivers State enhance the achievement of SDG 4. These programmes aim to update and upgrade the skills of professionals across various fields, ensuring they remain competitive in the ever-evolving job market. Professional development programmes cover a wide range of subjects, from leadership and management to technical and industry-specific skills. By continuously developing the workforce's capabilities, public universities contribute to economic growth and development, which in turn supports the broader objectives of SDG 4 (Ololube et al., 2021). These programmes not only benefit individuals but also enhance the overall quality of education and services provided in various sectors.

In a study by Adeleke and Olubiyi (2019), the researchers examined the impact of parental involvement in education on students' academic achievement in public universities in Nigeria. The

study found a significant positive correlation between parental involvement and students' academic performance, highlighting the critical role parents play in supporting education outcomes. Again, Okeke and Nwankwo (2020) conducted research on the contributions of civil society organizations (CSOs) to promoting inclusive and equitable quality education in Rivers State, Nigeria. The study revealed that CSOs play a crucial role in advocating for educational policies, mobilizing resources, and facilitating community engagement initiatives to address educational disparities and promote access to education for marginalized populations. The gaps identified in the study shows the importance of conducting empirical research to investigate roles, interactions, and contributions of public universities in achieving SDG 4 in Rivers State, Nigeria. This study aims to fill the gap by providing evidence-based perceptions that inform policy, practice, and future research endeavors in the field of education and sustainable development.

Statement of the Problem

Sustainable Development Goal 4 (SDG 4) aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. However, public universities in Rivers State face significant challenges in addressing the core issues that SDG 4 seeks to resolve. These challenges include disparities in access to education, inequitable distribution of resources, and gaps in educational quality that hinder the attainment of a universally high standard of education. Despite the implementation of various programmes such as Centre for Continuing Education (CCE) programmes, Open and Distance Learning (ODL) programmes, professional development programmes, sandwich programmes, certificate courses, and postgraduate programmes many students and community members still face significant barriers to accessing quality education. These barriers include financial constraints, geographical limitations, and lack of awareness or support services, all of which contribute to an uneven educational system.

The reason for this research is to investigate the effectiveness of the current programmes and initiatives in public universities in Rivers State in achieving SDG 4. It aims to identify gaps and propose solutions that could lead to more significant and lasting improvements in the education system. Although other studies have examined similar issues, they focused on different methods or aspects of the problem, however none to the knowledge of the researcher have discussed on the roles of public universities in achieving SDG4 goals which prompted the investigation to research on roles of public universities in the achievement of sustainable development goal 4 in in Rivers State Nigeria.

Purpose of the Study

The purpose of the study was to investigate roles of public universities in the achievement of Sustainable Development Goal 4 in Rivers State. Specifically, the objectives of the study sought to:

1. find out the extent to which management of centres for continuing education programmes by public universities enhance the achievement of SDG4 in Rivers State.
2. ascertain the extent to which management of ODL programmes by public universities enhance the achievement of SDG4 in Rivers State.
3. determine the extent to which organizing of professional development programmes by public universities enhance the achievement of SDG4 in Rivers State.

Research Questions

The following research questions guided the study:

1. To what extent does management of centre of continuing education by public universities enhance the achievement of SDG4 in Rivers State?
2. To what extent does management of Open and Distance Learning programmes by public universities enhance the achievement of SDG4 in Rivers State?
3. To what extent does organizing of professional development programmes by public universities enhance the achievement of SDG4 in Rivers State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of lecturers and administrators on the extent to which management of CCE programmes enhances the achievement of SDG4 in public universities in Rivers State.
2. There is no significant difference in the mean ratings of lecturers and administrators on the extent to which management of ODL programmes enhances the achievement of SDG4 in public universities in Rivers State.
3. There is no significant difference in the mean ratings of lecturers and administrators on the extent to which organizing of professional development programmes enhances the achievement of SDG4 in public universities in Rivers State.

Conceptual Review

Extent to which Management of Centre for Continuing Education Programmes by Public Universities Enhance the Achievement of SDG4

The management of Centre for Continuing Education (CCE) programmes by public universities plays a crucial role in the achievement of Sustainable Development Goal 4 (SDG 4) in Rivers State, Nigeria. SDG 4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. CCE programmes are instrumental in reaching diverse populations, offering flexible learning options, and addressing the educational needs of various groups within the community. CCE programmes provide access to education for individuals who may not have had the opportunity to pursue traditional academic pathways. These programmes cater to adult learners, working professionals, and marginalized groups, ensuring that education is inclusive and accessible. By offering courses that are tailored to the needs of these groups, CCE programmes help to bridge the educational gap and promote lifelong learning (UNESCO, 2021). For instance, in Rivers State, CCE programmes have been designed to provide vocational training, literacy education, and professional development courses, which are essential for empowering individuals and enhancing their employability (National Universities Commission, 2020).

Extent to which Management of Open and Distance Learning Programmes by Public Universities Enhance the Achievement of SDG4.

Open and Distance Learning (ODL) programmes offered by public universities have emerged as a significant means to achieve Sustainable Development Goal 4 (SDG4) in Rivers State, Nigeria. SDG4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. ODL programmes have become vital in addressing educational disparities and enhancing access to quality education, particularly in regions facing infrastructural and socio-economic challenges.

The adoption of ODL in Rivers State's public universities aligns with the broader goals of SDG4 by expanding educational opportunities to individuals who might otherwise be excluded from

traditional educational settings. This inclusivity is particularly crucial in a diverse and populous state like Rivers, where geographical, economic, and social barriers can impede access to education. By leveraging technology and flexible learning modalities, ODL programmes break down these barriers, offering education to a wider demographic, including working adults, women, and individuals in remote areas (Aina, 2020). One of the key aspects of ODL programmes is their flexibility, which allows learners to balance education with other responsibilities such as work and family. This flexibility is vital in a state where many individuals engage in informal employment or have caregiving duties that prevent them from attending traditional classes. Through ODL, public universities in Rivers State can cater to these learners, enabling them to pursue higher education and improve their socio-economic status. This approach not only enhances individual growth but also contributes to the overall development of the community, aligning with the targets of SDG4 (Okebukola, 2021).

ODL programmes also address the issue of educational quality by providing resources and learning materials that are often superior to those available in some traditional settings. The use of digital platforms enables the inclusion of up-to-date and diverse content, which can be regularly updated to reflect current knowledge and best practices. This ensures that learners receive a high-quality education that is relevant to their needs and the demands of the modern workforce (Jegade, 2019). Additionally, ODL programmes foster lifelong learning, a critical component of SDG4. By offering continuous education opportunities, these programmes encourage individuals to keep updating their skills and knowledge throughout their lives. This is particularly important in today's rapidly changing world, where technological advancements and new information continuously reshape various fields. Lifelong learning through ODL helps individuals stay competitive and adaptable, contributing to both personal and societal progress (Ogunleye, 2022). The impact of ODL on gender equality is another significant contribution to SDG4. In many parts of Rivers State, cultural norms and economic constraints limit women's access to education. ODL provides an alternative that allows women to pursue education without having to leave their homes or disrupt their familial responsibilities. This has led to increased female enrollment in higher education, empowering women and promoting gender equality (Eze, 2021). Again, ODL programmes support the inclusion of marginalized groups, such as people with disabilities. Traditional educational settings often lack the necessary accommodations and support for these individuals. ODL, with its adaptable and accessible formats, can provide customized learning experiences that cater to the specific needs of disabled learners, ensuring that they too have the opportunity to pursue quality education (Adebayo, 2023).

Extent to which Organizing of Professional Development Programmes by Public Universities Enhance the Achievement of SDG 4 in Rivers State.

Public universities have taken on the responsibility of organizing and implementing various professional development initiatives to enhance the quality of education and contribute to the realization of this global goal. Professional development programmes are essential for improving the skills, knowledge, and competencies of teachers at all levels. In Rivers State, public universities have recognized the importance of these programmes in achieving SDG4 and have implemented a range of initiatives to address the needs of teachers, administrators, and other education professionals (Akpan & Ita, 2018). These programmes are designed to enhance teaching

methodologies, curriculum development, and educational leadership, ultimately leading to improved learning outcomes for students.

One of the primary ways public universities in Rivers State organize professional development programmes is through workshops and seminars. These events bring together teachers from various institutions to share best practices, discuss challenges, and learn about innovative teaching methods. For example, the University of Port Harcourt has organized several workshops focused on integrating technology into classroom instruction, which aligns with the SDG4 target of increasing the supply of qualified teachers, including through international cooperation for teacher training in developing countries (Amadi & Adiele, 2019). In addition to workshops and seminars, public universities in Rivers State have also established partnerships with international organizations and institutions to enhance their professional development offerings. These collaborations provide opportunities for teachers to gain exposure to global best practices and cutting-edge research in education. For instance, Rivers State University has partnered with UNESCO to offer training programmes on inclusive education, addressing the SDG4 target of eliminating gender disparities in education and ensuring equal access to all levels of education for vulnerable populations (Nwankwo & Obisike, 2020).

Public universities in Rivers State have also recognized the importance of research-based professional development programmes. By encouraging teachers to engage in action research and reflective practice, these institutions are fostering a culture of continuous improvement and evidence-based decision-making in education. This aligns with the SDG4 target of substantially increasing the supply of qualified teachers, as it equips teachers with the skills to critically analyze their own practice and make data-driven improvements (Ogbonna & Ibezim, 2022).

Methodology

This study adopted a descriptive survey design.

The population of the study was 3,648 staff of public universities in Rivers State which consists of 1385 academic staff of University of Port Harcourt, 1705 academic staff of Rivers state university and 435 academic staff of Ignatius Ajuru University of Education and 123 administrators. (Source: Establishment Desk of Public Universities in Rivers State 2024). The sample size of this study was 730 respondents comprising two hundred and seventy-seven (277) academic staff of University of Port Harcourt, three hundred and forty-one (341) academic staff of Rivers state university and eighty-seven (87) and twenty-five (21) administrators. The multistage sampling technique was adopted in selecting the sample. Firstly, random sampling was used to select 3 faculties from each university, secondly, the proportionate stratified sampling technique was adopted in selecting 20% of the entire population of the study.

The instrument for data collection in this study was a researcher-designed questionnaire titled 'Roles of Public Universities in the Achievement of Sustainable Development Goal 4 Questionnaire (RPUASDG4Q). The research instrument was validated by the researcher's supervisor and two other experts, one in the field of Educational Management and the other in Measurement and Evaluation in Rivers State University. The completed copies of the questionnaire were analyzed for reliability using Cronbach Alpha Method. The reason was to establish the internal consistency of the instrument. The reliability coefficients of 0.78, 0.81, 0.77, 0.87, 0.88 and 0.81. were obtained for the various clusters of the instrument which showed the instrument was reliable. A total of 730 copies of the questionnaire were administered on lecturers

and administrators from the three public Universities used in the study by the researcher and two (2) research assistants who are post graduate students of Rivers State University. However, due to poor accessibility and availability on several visits to the respondents for collection, only 672 (92% rate) were retrieved 651 lecturers and 21 administrators and this proportion was used for the analysis. The research questions were answered using mean and standard deviation statistics, while the null hypotheses were tested using the independent t-test statistical tool at 0.05 level of significance.

Results

Research Questions1: To what extent does management of centre of continuing education by public universities enhances the achievement of SDG4 in Rivers State?

Table 4.1: Summary of descriptive statistics on the extent management of centre of continuing education by public universities enhances the achievement of SDG4 in Rivers State.

S/N	Items	Lecturers		Administrators		Remarks
		\bar{X}	SD	\bar{X}	SD	
1	CCE programmes at your university provide access to adults who missed formal education earlier, supporting lifelong learning opportunities.	1.00	0.00	1.00	0.00	VLE
2	CCE programmes accommodate working adults seeking to return to education, fostering inclusive access to quality education.	3.22	0.71	3.15	0.68	HE
3	Your university offers counseling support services to adults enrolling in CCE programmes to help them navigate their educational challenges.	3.21	0.71	3.18	0.69	HE
4	The courses offered through CCE programmes help adult learners gain skills and knowledge necessary for professional development, contributing to economic growth and employability	2.90	0.54	2.89	0.53	HE
5	Learning resources such as libraries and online materials are easily accessible to adults enrolled in CCE programmes, promoting equitable quality education.	2.87	0.64	2.83	0.62	HE
6	CCE programmes promote inclusivity, ensuring that adults from diverse backgrounds can participate and achieve their educational goals	3.36	0.67	3.31	0.69	HE
7	CCE programmes contribute to improving literacy rates among adult learners in public universities, advancing inclusive and equitable quality education.	3.51	0.66	3.47	0.69	HE

Grand mean	2.87	2.83	HE
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Criterion mean = 2.50. Guide: 0 - 1.49 =Very Low Extent (VLE); 1.50 - 2.49 = Low Extent (LE); 2.50 – 3.49 = High Extent (HE); 3.50 – 4.00 = Very Low Extent (VLE)

Table 4.1 revealed the mean ratings and standard deviations of lecturers and administrators on the extent to which the management of the Centre of Continuing Education (CCE) by public universities enhances the achievement of SDG4 in Rivers State. The data indicate that the mean ratings of lecturers for items 1 to 5 are: 1.00, 3.22, 3.21, 2.90, and 2.87, while administrators mean ratings are: 1.00, 3.15, 3.18, 2.89, and 2.83. Based on the criterion mean of 2.50, both lecturers and administrators rated items 2 to 7 as high extent, agreeing that; CCE programmes accommodate working adults seeking to return to education, fostering inclusive access to quality education, your university offers counseling support services to adults enrolling in CCE programmes to help them navigate their educational challenges, the courses offered through CCE programmes help adult learners gain skills and knowledge necessary for professional development, contributing to economic growth and employability, Learning resources such as libraries and online materials are easily accessible to adults enrolled in CCE programmes, promoting equitable quality education, CCE programmes promote inclusivity, ensuring that adults from diverse backgrounds can participate and achieve their educational goals and CCE programmes contribute to improving literacy rates among adult learners in public universities, advancing inclusive and equitable quality education. The cluster means are 2.87 for lecturers and 2.83 for administrators, while the grand mean is 2.85. This indicates that, to a high extent, the management of the Centre of Continuing Education by public universities enhances the achievement of SDG4 in Rivers State.

Research Questions 2: To what extent does management of Open and Distance Learning programmes by public universities enhances the achievement of SDG4 in Rivers State?

Table 4.2: Summary of descriptive statistics on the extent management of Open and Distance Learning programmes by public universities enhances the achievement of SDG4 in Rivers State.

S/N	Items	Lecturers		Administrators		Remarks
		\bar{X}	SD	\bar{X}	SD	
8	ODL programmes contribute to reducing educational inequalities in Rivers State by providing opportunities for marginalized and underserved populations to access quality education.	2.29	1.21	2.36	1.30	LE
9	ODL programmes offered by public universities in Rivers State provide flexibility in course scheduling and pacing, ensuring equitable access for diverse learners,.	3.27	0.65	3.30	0.64	HE
10	ODL programmes contribute to increasing the number of youth and adults with relevant skills for	3.32	0.67	3.33	0.64	HE

11	employment in Rivers State, fostering economic growth and personal development ODL programmes contribute to increasing the number of youth and adults with relevant skills for employment in Rivers State.	3.24	0.58	3.30	0.62	HE
12	ODL programmes integrate work-based learning or practical components in their curriculum, ensuring learners gain hands-on experience that enhances employability	3.15	0.66	3.17	0.65	HE
13	ODL programmes contribute to the development of entrepreneurial skills among learners in Rivers State, equipping them for self-employment and innovation	3.13	0.69	3.10	0.75	HE
14	ODL programmes contribute to achieving the target of equal access to affordable and quality technical, vocational, and tertiary education in Rivers State, supporting the achievement of lifelong learning opportunities for all .	3.10	0.64	3.06	0.72	HE
Grand mean		3.07		3.09		HE

Criterion mean = 2.50. Guide: 0 - 1.49 =Very Low Extent (VLE); 1.50 - 2.49 = Low Extent (LE); 2.50 – 3.49 = High Extent (HE); 3.50 – 4.00 = Very Low Extent (VLE)

Table 4.2 presents the mean ratings and standard deviations of lecturers and administrators on the extent to which the management of Open and Distance Learning (ODL) programmes by public universities enhances the achievement of SDG4 in Rivers State. The data show that the mean ratings of lecturers for items 8 to 14 are: (2.29), (3.27), (3.32), (3.24), (3.15), (3.13), and (3.10,) while the administrators' mean ratings are: (2.36), (3.30), (3.33), (3.30), (3.17), (3.10), and (3.06). Based on the criterion mean of 2.50, both lecturers and administrators rated items 9 to 14 as "High Extent" (HE), indicating agreement that ODL programmes provide flexibility in course scheduling and pacing, address the specific learning needs of rural communities, contribute to increasing the number of youth and adults with relevant skills for employment, integrate work-based learning or practical components into their curriculum, contribute to developing entrepreneurial skills among learners, and support the achievement of equal access to affordable and quality technical, vocational, and tertiary education in Rivers State. However, Item 8, which relates to the contribution of ODL programmes to reducing educational inequalities, was rated as "Low Extent" (LE) by both lecturers and administrators, with mean ratings of 2.29 and 2.36, respectively, indicating a perception that ODL programmes are less effective in this area. The cluster means are 3.07 for lecturers and 3.09 for administrators, while the grand mean is 3.08. These results suggest that, to a high extent, the management of Open and Distance Learning programmes by

public universities enhances the achievement of SDG4 in Rivers State, particularly in promoting flexibility, inclusivity, and access to education for diverse learners.

Research Questions 3: To what extent does organizing of professional development programmes by public universities enhances the achievement of SDG4 in Rivers State?

Table 4.3: Summary of descriptive statistics on the extent organizing of professional development programmes by public universities enhances the achievement of SDG4 in Rivers State.

S/N	Items	Lecturers		Administrators		Remarks
		\bar{X}	SD	\bar{X}	SD	
15	I believe professional development programmes have improved my teaching or professional skills.	3.52	0.64	3.54	0.67	HE
16	It has helped me to integrate new teaching methods or technologies in your work.	3.56	0.58	3.53	0.58	HE
17	I am satisfied with the relevance of the topics covered in professional development programmes.	3.36	0.66	3.30	0.70	HE
18	It has provided opportunities for me to engage in community-based learning or outreach.	3.46	0.61	3.42	0.63	HE
19	It address the educational infrastructure and resource challenges in Rivers State.	3.49	0.55	3.42	0.56	HE
20	It has adequately addressed the needs of teachers in rural areas of Rivers State.	3.63	0.57	3.60	0.56	HE
21	It supports the integration of technology and digital literacy skills in your teaching.	3.12	0.69	3.10	0.75	HE
Grand mean		3.45		3.37		HE

Table 4.3 displays the mean ratings and standard deviations of lecturers and administrators on the extent to which organizing professional development programmes by public universities enhances the achievement of SDG4 in Rivers State. For items 15 to 21, the mean ratings for lecturers are 3.52, 3.56, 3.36, 3.46, 3.49, 3.63, and 3.12, respectively. The mean ratings for administrators for the same items are 3.54, 3.53, 3.30, 3.42, 3.42, 3.60, and 3.10. All items, with mean ratings above 3.00, were rated as "High Extent" (HE) by both lecturers and administrators. This indicates a consensus that professional development programmes significantly contribute to various aspects of enhancing SDG4. Specifically, these programmes are perceived to improve teaching and professional skills, assist in integrating new teaching methods or technologies, and cover relevant topics effectively. They also provide opportunities for community-based learning or outreach, address educational infrastructure and resource challenges in Rivers State, and meet the needs of

teachers in rural areas. Additionally, these programmes support the integration of technology and digital literacy skills in teaching. The cluster means are 3.45 for lecturers and 3.37 for administrators, while the overall grand mean is 3.42. These results suggest that, to a high extent, organizing professional development programmes by public universities enhances the achievement of SDG4 in Rivers State, emphasizing their effectiveness in professional skill improvement, community engagement, and addressing educational challenges.

Test of Hypotheses

1: There is no significant difference between the mean ratings of lecturers and administrators on the extent to which management of CCE programmes enhances the achievement of SDG4 in public universities in Rivers State.

Table 4.4: t-test summary showing significant difference in the mean ratings of lecturers and administrators on the extent to which management of CCE programmes enhances the achievement of SDG4 in public universities in Rivers State.

Variables	N	Mean	SD	Df	t-cal	t-crit	A	Remarks
Lecturers	651	2.87	0.37	670	0.173	1.93	0.05	Accepted
Administrators	21	2.83	0.35					

Significant

Table 4.4 presents the t-test analysis of the difference in mean ratings between lecturers and administrators regarding the extent to which the management of Continuing and Community Education (CCE) programs enhances the achievement of SDG4 in public universities in Rivers State. Lecturers had a mean rating of 2.87 with a standard deviation of 0.37, while administrators had a mean rating of 2.83 with a standard deviation of 0.35. The t-calculated value (t-cal) is 0.173, and t-crit is 1.93 with a p-value (Sig.) of 0.05. Since the p-value is greater than the 0.05 significance level, there is no statistically significant difference in the mean ratings of the two groups. Therefore, the null hypothesis stating that there is no significant difference between the mean ratings of lecturers and administrators is accepted. This indicates that both lecturers and administrators share similar views on the extent to which management CCE programmes enhances the achievement of SDG4 in public universities in Rivers State.

2: There is no significant difference between the mean ratings of lecturers and administrators on the extent to which management of ODL programmes enhances the achievement of SDG4 in public universities in Rivers State.

Table 4.5: t-test summary showing significant difference in the mean ratings of lecturers and administrators on the extent to which management of ODL programmes enhances the achievement of SDG4 in public universities in Rivers State.

Variables	N	Mean	SD	Df	t-cal	t-crit	A	Remarks
Lecturers	651	3.07	0.40	670	2.318	1.93	0.05	Not Significant
Administrators	21	3.09	0.41					

Table 4.5 presents the t-test analysis comparing the mean ratings of lecturers and administrators on the extent to which the management of Open and Distance Learning (ODL) programs enhances the achievement of SDG4 in public universities in Rivers State. Lecturers had a mean rating of

3.07 with a standard deviation of 0.40, while administrators had a mean rating of 3.09 with a standard deviation of 0.40. The t-calculated value (t-cal) is 2.318, Since the p-value is less than the 0.05 significance level, there is a statistically significant difference between the mean ratings of the two groups. Therefore, the null hypothesis stating that there is no significant difference between the mean ratings of lecturers and administrators is rejected. This indicates that lecturers and administrators have differing perceptions of the extent to which management ODL programs enhances the achievement of SDG4 in public universities in Rivers State.

3: There is no significant difference between the mean ratings of lecturers and administrators on the extent to which organizing of professional development programmes enhances the achievement of SDG4 in public universities in Rivers State.

Table 4.6: t-test summary showing significant difference in the mean ratings of lecturers and administrators on the extent to which organizing of professional development programmes enhances the achievement of SDG4 in public universities in Rivers State

Category	N	Mean	SD	Df	t-cal	t-crit.	Remark
Lecturers	651	3.45	0.87	670	1.401	1.93	NS
Administrators	21	3.37	0.86				

Table 4.6 presents the t-test analysis comparing the mean ratings of lecturers and administrators on the extent to which organizing professional development programs enhances the achievement of SDG4 in public universities in Rivers State. Lecturers had a mean rating of 3.01 with a standard deviation of 0.87, while administrators had a mean rating of 3.09 with a standard deviation of 0.86. The t-calculated value (t-cal) is 1.401, and the p-value (Sig.) is 0.161. Since the p-value is greater than the 0.05 significance level, there is no statistically significant difference between the mean ratings of the two groups. Therefore, the null hypothesis stating that there is no significant difference between the mean ratings of lecturers and administrators is accepted. This indicates that both lecturers and administrators hold similar views on the extent to which organizing professional development programs enhances the achievement of SDG4 in public universities in Rivers State.

Discussion of Findings

Extent management of centre of continuing education by public universities enhances the achievement of SDG4 in Rivers State

The findings from Table 4.1 highlight that both lecturers and administrators perceive the Centre of Continuing Education (CCE) in public universities as significantly contributing to the achievement of Sustainable Development Goal 4 (SDG4) in Rivers State. The mean ratings of lecturers and administrators, which consistently exceed the criterion mean of 2.50 for items 2 to 7, suggest a strong agreement on the positive impact of CCE programmes. Specifically, lecturers' mean ratings ranged from 1.00 to 3.22, while administrators' ratings ranged from 1.00 to 3.18, indicating a consensus on the role of CCE in providing educational access and support for adult learners. This finding aligns with the work of Ahuja and Savita (2018), who emphasized that educational programmes designed for adult learners are crucial for promoting lifelong learning and social inclusion. By accommodating working adults and offering counseling support, CCE

programmes not only enhance educational access but also provide essential guidance for adults seeking to reintegrate into the educational system. This observation supports Okiki's (2013) argument that access to learning resources is a critical factor in improving literacy rates and educational attainment among adult learners. By providing resources tailored to the needs of adult students, CCE programmes ensure that learners from diverse backgrounds can successfully engage with the content and achieve their educational goals.

Extent management of Open and Distance Learning programmes by public universities enhances the achievement of SDG4 in Rivers State

The findings from Table 4.2 reveal that both lecturers and administrators generally perceive Open and Distance Learning (ODL) programmes as significantly contributing to the achievement of Sustainable Development Goal 4 (SDG4) in Rivers State, although their views differ slightly on the extent of this impact. The mean ratings of lecturers for items 8 to 14 range from 2.29 to 3.32, while the mean ratings for administrators range from 2.36 to 3.33. Specifically, items 9 to 14, which received mean ratings above the criterion mean of 2.50, were rated as "High Extent" (HE) by both groups. This finding aligns with the work of Okafor and Agbaje (2020), who found that flexibility is a key advantage of ODL, enabling a broader demographic to participate in higher education. Additionally, the perception that ODL programmes effectively address the learning needs of rural communities highlights their role in bridging educational gaps. This is consistent with the findings of Ebong, Ojo, and Edeh (2019), who emphasized that ODL is instrumental in expanding educational access to underserved populations, particularly in rural areas where traditional educational infrastructure may be lacking.

Extent organizing of professional development programmes by public universities enhances the achievement of SDG4 in Rivers State

The findings from Table 4.3 indicate that both lecturers and administrators perceive the organization of professional development programmes by public universities as significantly contributing to the achievement of Sustainable Development Goal 4 (SDG4) in Rivers State. For items 15 to 21, all mean ratings were above 3.00, suggesting a consensus that these programmes are highly effective in enhancing various aspects of education. The mean ratings for lecturers range from 3.12 to 3.63, while those for administrators range from 3.10 to 3.60.

The mean ratings on improving teaching and professional skills (Items 15 and 16) indicate that both lecturers and administrators view professional development programmes as crucial for enhancing the capabilities of educators. This finding aligns with the observations of Okoro and Adewale (2020), who emphasized that continuous professional development is essential for equipping teachers with the latest pedagogical skills and knowledge, which in turn supports effective teaching and learning. The perception that professional development programmes assist in integrating new teaching methods or technologies (Item 17) highlights their role in adapting to educational innovations. This is particularly relevant in the context of SDG4, which emphasizes quality education through innovative teaching practices. This finding resonates with the work of Nwosu (2019), who noted that professional development programmes that focus on technology integration are key to modernizing education and making it more accessible and effective for diverse learners. Items 18 and 19, which received high ratings for providing opportunities for community-based learning or outreach and addressing educational infrastructure and resource challenges, respectively, further demonstrate the perceived effectiveness of these programmes in

broadening the impact of education beyond the classroom. By engaging with the community and addressing infrastructural gaps, professional development programmes contribute to the broader goals of SDG4, such as inclusive and equitable education. This supports the findings of Ude and

Conclusion

This study has demonstrated that public universities in Rivers State play a significant role in achieving Sustainable Development Goal 4 (SDG4) by enhancing quality education through various programmes. The findings revealed that initiatives such as the Centre for Continuing Education, Open and Distance Learning (ODL) programmes, professional development programmes, sandwich programmes, all contribute to promoting inclusive, equitable, and quality education. The uniform responses from lecturers across the three universities indicate a consensus on the effectiveness of these programmes in advancing SDG4.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Public universities in Rivers State should consider expanding their Centre for Continuing Education (CCE) programmes to include a wider range of courses and specialized training that align with the local and national development needs.
2. Public universities in Rivers State should strengthen their Open and Distance Learning (ODL) programmes by integrating more advanced technologies and adopting innovative teaching methods.
3. Universities should continue to prioritize and expand their professional development programmes for lecturers and staff by offering more frequent workshops, training sessions, and seminars that focus on contemporary educational practices and the latest advancements in teaching and learning.

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