EDUCATIONAL POLICIES FOR BRIDGING DIGITAL DIVIDE FOR EFFECTIVE TEACHING AND LEARNING OF BUSINESS EDUCATION IN SENIOR SECONDARY SCHOOLS IN RIVERS STATE

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ABSTRACT

This study investigated educational policies for bridging digital divide for effective teaching and learning of business education in senior secondary schools in Rivers State, Nigeria. Specifically, it assessed the extent of availability of digital infrastructure in urban and rural schools and examined the adequacy of educational policies addressing ICT integration. A descriptive survey research design was adopted. The population consisted of 801 business education teachers. A census sampling technique was employed. Data were collected using a structured questionnaire, subjected to expert validation. The reliability of the instrument was determined using Cronbach's Alpha, yielding a coefficient of 0.83, indicating high internal consistency. Data analysis involved the use of descriptive statistics such as mean and standard deviation to answer the research questions, while independent t-test was applied to test the two null hypotheses at 0.05 level of significance. Findings revealed that the extent of availability of digital infrastructure in both urban and rural schools was low. Similarly, educational policies addressing the digital divide were found to be inadequate. It was recommended that government and stakeholders strengthen digital infrastructure provision, enforce policy implementation with proper monitoring for teachers to bridge the digital divide.

Keywords: *digital divide, educational policies, ICT integration, digital infrastructure*

Introduction

In contemporary societies, access to digital technologies has become a critical factor in determining educational quality and equity. The concept of the digital divide, which refers to disparities in access to, use of, and benefit from information and communication technologies (ICT), has gained prominence in educational discourse. In Nigeria, particularly in Rivers State, government policies have highlighted the importance of ICT integration in the school system through the National Policy on Education (2020) and related initiatives by the Rivers State Ministry of Education. However, while such policies are commendable in intent, there is a growing concern about the uneven implementation across schools, especially between urban and rural locations. Senior secondary schools, which represent a crucial stage in preparing students for higher education and the global workforce, are disproportionately affected by this gap. Despite policy commitments, many schools lack sufficient infrastructure, trained personnel, or reliable electricity to effectively integrate digital learning.

Previous studies have documented how educational policies often serve as a framework for addressing inequalities in access to technology. However, in many developing contexts, policy intentions do not translate effectively into practice due to infrastructural and financial constraints. Van Dijk's digital divide theory, which highlights gaps in access, skills, and actual usage, provides a useful framework for understanding the Nigerian case. Globally, nations have adopted strategies to integrate ICT into curricula, but African studies reveal persistent gaps in rural–urban access to electricity, internet connectivity, and teacher preparedness. In Nigeria, scholars have reported that while urban schools in cities like Lagos, Abuja, and Port Harcourt show increasing ICT penetration, rural areas remain disadvantaged. The literature also suggests that awareness and monitoring of ICT-related educational policies remain weak at the school level, which further compounds inequalities. The present study seeks to build on this scholarship by focusing specifically on Rivers State, where unique socio-economic and infrastructural challenges influence how educational policies are enacted in senior secondary schools. This study therefore examined educational policies for bridging digital divide for effective teaching and learning of business education in senior secondary schools in Rivers State.

In recent years, education in Nigeria has been shaped by the integration of technology and digital learning, which are now essential for quality teaching and learning across subjects, including business education. Business education, in particular, requires access to digital tools, internet resources, and technological infrastructure to equip students with relevant skills for the 21st-century workplace. However, the reality in many senior secondary schools in Rivers State reveals

a wide digital divide that undermines the effective teaching of business education. Despite the presence of national educational policies such as the National Policy on Information and Communication Technology (ICT) in Education, the National Policy on Education, and various state-level directives aimed at promoting digital inclusion, many schools in Rivers State still lack adequate digital infrastructure, reliable internet connectivity, and functional ICT laboratories. Teachers of business education often encounter challenges in integrating technology into their instructional practices due to insufficient training, limited access to digital resources, and inadequate policy implementation.

The digital divide not only affects teachers' ability to adopt innovative pedagogies such as blended learning, e-assessment, and digital simulations, but also limits students' opportunities to acquire the necessary digital literacy and practical business skills demanded in the contemporary economy. Consequently, the effectiveness of business education in senior secondary schools is compromised, leaving students at a disadvantage compared to their counterparts in technologically advanced learning environments.

The pressing issue, therefore, lies in the mismatch between the objectives of educational policies designed to bridge the digital divide and their actual implementation in schools across Rivers State. If these gaps remain unaddressed, the digital divide will continue to hinder effective teaching, lower the quality of business education, and ultimately affect students' preparedness for higher education and future careers in business and related fields. This situation underscores the need to critically examine the extent to which educational policies are being implemented to bridge the digital divide for effective teaching and learning of business education in senior secondary schools in Rivers State.

The aim of the study is to examine educational policies for bridging digital divide for effective teaching and learning of business education in senior secondary schools in Rivers State. The study achieved the following objectives, which are:

16. To examine the extent of availability of digital infrastructure for effective teaching and learning of business education in secondary schools in Rivers State.

17. To investigate the extent educational policies addresses digital divide for effective teaching and learning of business education in secondary schools in Rivers State.

The following research questions guided the study.

18. What is the extent of availability of digital infrastructure for effective teaching and learning of business education in urban and rural secondary schools in Rivers State?

19. What is the extent educational policies addresses digital divide for effective teaching and learning of business education in secondary schools in Rivers State?

The following hypotheses were formulated and tested at 0.05 level of significance.

HO1: The opinion of teaching staff in urban and rural schools on the extent digital infrastructure are available for effective teaching and learning of business education in secondary schools in Rivers State does not differ significantly.

HO2: The opinion of teaching staff on the extent educational policies addresses digital divide in urban and rural schools for effective teaching and learning of business education in secondary schools in Rivers State does not differ significantly.

Literature Review

Digital divide refers to the gap between individuals, communities, or nations that have access to modern information and communication technology (ICT) and those that do not. Information and communication technology (ICT) according to Ololube (2015) is the capability (knowledge, skills and aptitude) of a person to identify, search effectively and present specific information in order to build knowledge and critical and creative thinking pertinent to a field of study. Hence, digital divide includes disparities in access to internet connectivity, computer hardware, software, and the digital literacy necessary to effectively use these technologies (van Dijk, 2020). The digital divide manifests not only in terms of physical access to technology but also in the capacity to use it meaningfully for education, employment, healthcare, and social participation.

The digital divide in computing refers to the unequal access to digital technologies, such as computers and the internet, and the skills to use them. This disparity can result in significant disadvantages for those lacking access or digital literacy, limiting their ability to connect, learn, and participate in the digital world. The digital divide is the gap between demographics and regions that have access to modern information and communications technology (ICT) and those with no or restricted access (International Telecommunication Union (ITU), 2021). This technology can include the telephone, television, PCs and internet connectivity. Broadly speaking, the digital divide refers to the gap between people who *can* access digital technologies, including the internet, versus those who *cannot*. This may be due to a lack of access to these technologies, although the problem is not just access-related.

Access Divide: This refers to the most fundamental gap in digital technology - physical access to devices and connectivity infrastructure. This could be hardware access and or connectivity access. The hardware access involves the ability to own or use digital devices such as computers, smartphones, and tablets. According to van Dijk (2020), approximately 3.5 billion people worldwide still lack access to basic digital hardware, creating a significant barrier to digital

participation. On the other hand, connectivity access involves the availability of reliable internet connections. Hilbert (2016) notes that while global internet penetration has increased substantially, significant disparities exist between developed and developing regions, with rural and remote areas particularly disadvantaged. However, the access divide continues to be the most visible manifestation of digital inequality, though its nature has shifted from a binary 'have/have-not' paradigm to one defined by quality and reliability of access (Robinson, 2022).

Skills Divide: The skills divide represents gaps in digital literacy and competencies required to effectively use technology. This type of divide encompasses technical skills, information skills and strategic skills. The technical Skills include basic operational abilities such as using a computer, navigating the internet, and using common applications. Hargittai (2018) demonstrate that technical skill gaps persist even in regions where physical access has improved. Also, the information skills involve the ability to search, evaluate, and process digital information effectively. Van Deursen and van Dijk (2019) found that even among regular internet users, significant disparities exist in information skills, affecting how individuals benefit from online resources. Lastly, the strategic Skills represent the highest order of digital skills, involving the capacity to use digital tools for personal or professional advancement. "Strategic digital skills determine whether technology access translates into tangible life opportunities.

Usage Divide: this usage divide focuses on how and why technology is used, even when access is available. It includes frequency and time as well as purpose and activities. The frequency and time show the differences in how often and how long individuals engage with digital technologies create usage divides. Hargittai (2018) found that even among individuals with similar access, significant variations in usage time create disparities in digital benefits. On the other hand, the purpose and activities reveal how technology is used - whether for consumption or production, entertainment or education - significantly impacts outcomes. Robinson (2022) noted that different usage patterns correlate with socioeconomic advantages, with disadvantaged groups often using technology primarily for entertainment rather than advancement. Hence, usage divides may be less visible than access divides but often have more profound implications for reinforcing existing social inequalities.

Generational Divide: the generational digital divide refers to gaps between different ages cohorts in technological adoption and proficiency. This involves Digital Natives vs. Digital Immigrants and adoption barrier. According to Friemel (2016), the Digital Natives vs. Digital Immigrants foundational concept distinguishes between those who grew up with digital technology (natives) and those who adopted it later in life (immigrants). Though somewhat simplified, research continues to show significant differences in technological comfort and adaptation between age groups. The adoption barriers explains that older generations face unique challenges in digital adoption, including physical limitations, cognitive barriers, and attitudinal factors. According to

Friemel (2016), "age remains one of the strongest predictors of digital exclusion, with each advancing decade of age correlating with decreased digital participation".

Geographic Divide: this divide encompasses disparities in digital access and quality based on location. For example, Urban-Rural Divide: Urban areas typically have better digital infrastructure, creating significant gaps with rural regions. Philip et al. (2017) document how rural communities face multiple digital disadvantages, from limited broadband availability to fewer digital service options. Global North-South Divide: On an international scale, significant disparities exist between developed and developing nations. The International Telecommunication Union (2022) reports that internet penetration in developing countries remains approximately 30 percentage points below that of developed nations. Thus, geographic location continues to be a critical determinant of digital opportunity, with rural and remote communities experiencing compound disadvantages across multiple dimensions of digital access.

Bandwidth Divide: The bandwidth divide refers to disparities in connection quality and speed. It entails speed gap and reliability difference. In speed gap, significant variations in connection speeds create functional divides in what users can accomplish online. Akamai's (2023) State of the Internet report reveals that average connection speeds can vary by a factor of 100 between advanced and developing economies. In reliability difference, connection reliability affects digital participation. Robinson (2022) documents how intermittent connectivity creates "information underclass" conditions that limit effective technology use. However, as digital applications become increasingly bandwidth-intensive, speed and reliability divide effectively lock out significant populations from modern digital participation.

Factors responsible for Digital Divides

Several factors are responsible for the persistence of digital divides across societies. One major factor is socio-economic status, as individuals from low-income households often lack access to digital devices and reliable internet connectivity (van Dijk, 2020). Educational background also plays a significant role, since people with limited literacy and digital skills are less likely to utilize technology effectively (Hargittai, 2021). In addition, geographical location contributes to the divide, with rural communities experiencing inadequate infrastructure compared to urban areas. Other factors include age differences, where younger people are typically more digitally included, and policy gaps, where weak government interventions fail to bridge the inequalities.

Effective teaching of business education

Effective teaching and learning of business education involves the use of instructional strategies, methods, and resources that promote students' understanding of business concepts, skill acquisition, and practical application in real-life situations. It requires teachers to adopt learner-centered approaches, integrate technology, and provide experiential learning opportunities that

prepare students for entrepreneurship, employment, and self-reliance. As Nwosu and Okoli (2021) note, effective teaching in business education enhances students' problem-solving abilities and equips them with relevant competencies for the world of work. Similarly, Adebayo and Yusuf (2020) emphasize that the effectiveness of business education instruction depends largely on the teacher's pedagogical skills, availability of teaching resources, and alignment of curriculum with current economic realities.

Bridging digital divide

The **digital divide** describes the disparities in access to digital technologies and the internet across different socio-economic groups, regions, and countries. Bridging this divide is crucial to ensure that all individuals and communities can participate fully in the global digital economy, access quality education, and benefit from social and economic opportunities. Without targeted interventions, the digital divide risks reinforcing existing inequalities and creating new forms of exclusion.

Efforts to bridge the digital divide must begin with infrastructure development and affordability. Providing broadband connectivity and affordable devices ensures that underserved populations are not left behind. Warschauer (2003) noted that the divide is not merely about physical access but also about meaningful use, which requires users to be able to apply technology to improve their lives. This highlights the need to combine infrastructure with skill development and contextual applications of ICT.

Another crucial strategy is digital literacy and capacity building. According to Norris (2001), bridging the divide requires more than technological provision; it necessitates building human capital that enables citizens to effectively use ICTs in education, health, employment, and governance. Empowering people with the knowledge, skills, and confidence to navigate the digital world ensures that access translates into real social and economic benefits.

Finally, sustainable solutions demand **policy interventions and partnerships** between governments, private actors, and civil society. By promoting equitable access, enhancing affordability, and embedding digital inclusion into broader development policies, stakeholders can create inclusive digital societies. Bridging the digital divide is therefore not just a technological task but a socio-political commitment to equity and inclusion.

Availability of digital infrastructure

The availability of digital infrastructure is a fundamental requirement for fostering inclusive socio-economic development in the 21st century. Digital infrastructure refers to the foundational technologies and systems that support connectivity, such as broadband internet, mobile networks, data centers, cloud computing facilities, and related hardware and software resources. It is the

backbone upon which digital transformation, education, e-governance, e-commerce, and innovation thrive. Without equitable access to digital infrastructure, schools' risk being excluded from the benefits of the digital economy, perpetuating inequality and marginalization.

In many developing countries, digital infrastructure remains unevenly distributed, creating stark disparities between urban and rural schools. According to the International Telecommunication Union (ITU, 2021), nearly half of the global population remains offline, with limited broadband penetration in low-income regions. The lack of reliable infrastructure in rural and marginalized areas has restricted access to online education, healthcare, and employment opportunities, particularly during crises such as the COVID-19 pandemic. This demonstrates that availability of infrastructure is not merely a technological concern but a socio-economic necessity.

Beyond physical access, the quality, affordability, and sustainability of digital infrastructure determine its impact. Friederici et al. (2020) highlight that while infrastructure deployment has expanded in Africa, gaps in affordability and stable access continue to hinder effective use. Thus, the presence of mobile towers or fiber optic cables alone does not guarantee inclusion unless accompanied by affordable services and user-friendly applications. Policymakers must therefore ensure that digital infrastructure is both accessible and affordable to foster equitable participation in the digital economy.

Moreover, the availability of robust infrastructure contributes to broader national competitiveness and innovation. As De la Peña et al. (2022) note, countries with stronger digital infrastructure are better positioned to attract investment, scale digital entrepreneurship, and accelerate innovation ecosystems. In this sense, the availability of infrastructure is not just a development enabler but also a strategic resource for national and global competitiveness in an increasingly digitalized world.

Educational policies addressing digital divide

Educational policies refer to the principles, rules, and regulations that guide the organization, administration, and delivery of education within a country. They are formulated to ensure access, equity, quality, and relevance in education, serving as a framework for decision-making and implementation by governments, schools, and other stakeholders. For instance, educational policies often address issues such as curriculum development, teacher training, funding, assessment, and the integration of technology in learning. According to Okeke and Ume (2021), well-structured educational policies are essential for shaping students' learning experiences and improving national development outcomes. Similarly, Oboegbulem and Onwurah (2020) argue that policies act as a roadmap that aligns educational practices with societal needs, ensuring that education remains a tool for both individual empowerment and socio-economic progress.

Government policies regarding market competition, universal service obligations, and infrastructure investment significantly shape digital access landscapes. "The regulatory approach to telecommunications fundamentally determines whether market forces will exacerbate or mitigate digital divides". A comprehensive analysis by Gillwald et al. (2024) examining 30 countries found that those implementing robust universal service funds with clear disbursement mechanisms achieved 27% higher rural connectivity rates compared to countries with minimal regulatory intervention. The presence or absence of systematic digital skills initiatives in education systems and community programs significantly impacts adoption patterns. "Even when physical access barriers are addressed, insufficient digital literacy initiatives create a second-order divide that prevents meaningful usage". Research by Hinostroza et al. (2024) demonstrates that countries with comprehensive digital literacy strategies integrated into formal education from early grades show significantly higher rates of advanced digital skills among all demographic groups. How governments allocate electromagnetic spectrum the foundation of wireless communications has profound implications for connectivity. "Spectrum allocation policies that prioritize government revenue over coverage expansion fundamentally shape who can participate in the digital economy". A recent analysis by the GSM Association (2024) found that countries that implemented social obligation requirements alongside spectrum auctions achieved 40% higher rural connectivity rates compared to those focused primarily on maximizing auction revenues.

Methodology

This study adopted descriptive research surveys design with a comprehensive view of the digital divide in Rivers State senior secondary schools. The population of the study comprised 4,973 business education teachers teaching Commerce, Financial Accounting and Economics, the three main business education subjects in senior secondary schools. Also, nine teachers were selected from each schools teaching each subject from SSS 1-3. Using a stratified sampling approach, six schools were selected to represent both urban and rural schools. Schools in Port Harcourt City, Obio/Akpor and Eleme represent urban schools while schools in Andoni, Omuma and Abua represent schools in rural schools. Hence, hence the sample size of the study was 801, out of which 495 teachers were sampled from urban schools while 306 were sampled from rural schools.

The table above gives the sample distribution of the sample respondents.

Location	LGA	No. of School	Population size
Urban	Port Harcourt	18 (x3)	162
	Obio/Akpor	28	252
	Eleme	6	81
	Total	**55**	**495**
Rural	Andoni	13	135
	Omuma	6	117

Abua/Odual	15	54
Total	**34**	**306**
Grand Total	**89**	**80I**

The instrument developed for gathering of data was tagged "Educational Policies for Bridging Digital Divide for Effective Teaching and Learning of Business Education Questionnaires (EPBDDETLBEQ)". The instrument was given to expert to validate its face and content validity while test re-test method was used to establish the reliability of the instrument with Cronbach alpha index of 0.83, which guaranteed the use of the instrument. Data collected were analyzed using descriptive statistics (mean and standard deviation) to answer the research questions while t-tests was used to test the hypotheses to establish the extent of availability of digital infrastructural disparities between urban and rural schools.

Result and Discussion

Research question one: What is the extent of availability of digital infrastructure for effective teaching and learning of business education in urban and rural secondary schools in Rivers State?

Table 1: Mean responses on the extent of availability of digital infrastructure for effective teaching and learning of business education in urban and rural secondary schools in Rivers State

S/N		Teachers in Urban Schools (n=495)		Teachers in Rural Schools (n=306)		Mean Set	Remark
	Availability of Digital Infrastructure for Effective Teaching and Learning of Business Education	**Mean**	**SD**	**Mean**	**SD**		
1.	My school has adequate computer systems for teaching and learning business education.	2.34	0.56	2.13	0.67	2.24	Low Extent
2.	There is reliable internet connectivity available in my school.	2.40	0.73	2.21	0.65	2.31	Low Extent
3.	Power supply in my school supports the use of digital technologies for teaching.	2.18	0.58	2.08	0.54	2.13	Low Extent

4.	My school has functional multimedia projectors and smart boards for business education lessons.	2.01	0.86	2.11	0.76	2.06	Low Extent
5.	The ICT laboratory is well-equipped and accessible for business education students.	2.44	0.72	2.09	0.66	2.27	Low Extent
6.	Teachers and students have access to personal or shared laptops/tablets for learning purposes.	2.43	0.66	2.29	0.59	2.36	Low Extent
7.	There is adequate technical support staff for maintaining digital infrastructure in the school.	2.21	9.63	2.18	0.71	2.20	Low Extent
	Grand Total	**2.29**	**1.96**	**2.16**	**0.65**	**2.22**	**Low Extent**

The data on table 1 shows that the extent of availability of digital infrastructure for effective teaching and learning of business education in urban and rural secondary schools in Rivers State is low (Mean=2.22). The table revealed that mean responses of teachers in urban schools on availability of digital infrastructure for effective teaching and learning of business education is slightly higher (Mean=2.29, SD=1.96) than their counterparts in rural school (Mean=2.16, SD=0.65). Conclusively, the extent of availability of digital infrastructure for effective teaching and learning of business education in urban and rural secondary schools in Rivers State is low.

Research question two: What is the extent educational policies addressing digital divide for effective teaching and learning of business education in secondary schools in Rivers State?

Table 2: Mean responses on the extent educational policies addressing digital divide for effective teaching and learning of business education in secondary schools in Rivers State based on school location

S/N	Educational Policies Addressing Digital Divide in Teaching and Learning of Business Education	Teachers in Urban Schools (n=495)		Teachers in Rural Schools (n=306)		Mean Set	Remark
		Mean	SD	Mean	SD		
8.	Government educational policies provide clear guidelines for integrating ICT in teaching business education.	2.46	0.77	2.42	0.75	2.44	Low Extent
9.	Existing policies adequately address the challenges of digital divide in urban and rural secondary schools.	2.41	0.65	2.32	0.70	2.37	Low Extent
10.	There are specific policies for ensuring equitable distribution of ICT resources across schools.	2.34	0.80	2.38	0.64	2.36	Low Extent
11.	Educational policies provide training opportunities for teachers on ICT integration in business education.	2.37	0.73	2.24	0.82	2.31	Low Extent
12.	Educational policies ensure regular funding for ICT infrastructure in secondary schools.	2.42	0.68	2.39	0.72	2.41	Low Extent
13.	Policy implementation is monitored effectively to bridge the digital divide.	2.08	0.75	2.06	0.81	2.07	Low Extent
14.	There are policy provisions for collaboration with private organizations to support ICT in schools.	2.42	0.85	2.46	0.89	2.44	Low Extent
	Grand Total	**2.36**	**0.75**	**2.32**	**0.76**	**2.34**	**Low Extent**

The data on table 2 shows that the extent educational policies addressing digital divide for effective teaching and learning of business education in secondary schools in Rivers State is low (Mean=2.34). The table revealed that mean responses of teachers in urban schools on extent educational policies addressing digital divide for effective teaching and learning of business education in secondary schools in Rivers State is slightly higher (Mean=2.36, SD=0.76) than their counterparts in rural school (Mean=2.32, SD=0.76). Conclusively, there is no effective educational policies addressing digital divide for effective teaching and learning of business education in secondary schools in Rivers State.

HO1: The opinion of teaching staff in urban and rural schools on the extent digital infrastructure are available for effective teaching and learning of business education in secondary schools in Rivers State does not differ significantly.

Table 3: Summary of t-test on the difference between the mean responses of teaching staff in urban and rural schools on the extent digital infrastructure available for effective teaching and learning of business education

Teachers School Location	N	Mean	SD	Df	t-test	Sig.	Remark
Urban	495	2.29	1.96	799	1.122	0.262	NS
Rural	306	2.16	0.65				

NS= Not Significant

Table 3 above showed the mean scores of teaching staff in urban schools is 2.29 and the standard deviation is 1.96 on the extent digital infrastructure available for effective teaching and learning of business, while the mean scores of teaching staff in rural schools is 2.16 and the standard deviation is 0.65. The t-test calculated value is 1.122, the corresponded significance value is 0.262 showing > 0.05 at 799 degrees of freedom. Hence, it is concluded that the opinion of teaching staff in urban and rural schools on the extent digital infrastructure available for effective teaching and learning of business education in secondary schools in Rivers State does not differ significantly. Therefore, the null hypothesis one is retained at 0.05 level of significance.

HO2: The opinion of teaching staff on the extent educational policies addresses digital divide in urban and rural schools for effective teaching and learning of business education in secondary schools in Rivers State does not differ significantly.

Table 4: Summary of t-test on the difference between the mean responses of teaching staff in urban and rural schools on the extent digital infrastructure available for effective teaching and learning of business education

Teachers School Location	N	Mean	SD	Df	t-test	Sig.	Remark
Urban	495	2.36	0.75	799	0.730	0.466	NS
Rural	306	2.32	0.76				

NS= Not Significant

Table 4 above showed the mean scores of teaching staff in urban schools is 2.36 and the standard deviation is 0.75 on the extent educational policies addresses digital divide in urban and rural schools for effective teaching and learning of business, while the mean scores of teaching staff in rural schools is 2.32 and the standard deviation is 0.76. The t-test calculated value is 0.730, the corresponded significance value is 0.466 showing > 0.05 at 799 degrees of freedom. Hence, it is concluded that the opinion of teaching staff in urban and rural schools on the extent digital infrastructure available for effective teaching and learning of business education in secondary schools in Rivers State does not differ significantly. Therefore, the null hypothesis one is retained at 0.05 level of significance.

The findings of this study revealed that the extent of availability of digital infrastructure for effective teaching and learning of business education in senior secondary schools in Rivers State is low, both in urban and rural areas. Although the mean score of teachers in urban schools (M=2.29) was slightly higher than that of their rural counterparts (M=2.16), the t-test analysis showed no significant difference in their opinions. This indicates that digital infrastructure challenges cut across both settings, thereby limiting the effectiveness of business education delivery. This outcome aligns with the work of Omodan and Dube (2020), who emphasized that inadequate ICT resources in many African schools hinder equitable access to quality education, thereby widening the digital divide not just urban and rural dichotomy but citizenry access to ICT resources, keeping many school teachers and students at disadvantaged position.

Similarly, the study found that educational policies addressing the digital divide for effective teaching and learning of business education in Rivers State are inadequate. Teachers' responses showed that the extent of policy effectiveness was generally low (M=2.34), with no significant difference between urban (M=2.36) and rural schools (M=2.32). This suggests that existing policies are either poorly implemented or insufficient to address the infrastructural gaps in secondary schools. This finding corroborates Oye et al. (2011), who argued that the lack of

effective ICT-related educational policies in Nigeria remains a key barrier to integrating technology in teaching and learning into educational system of the nation.

The implication of the study is that there is no effective availability of ICT infrastructure in the schools in Rivers State, let alone digital divide in urban and rural dichotomy, even though the responses of teachers in urban schools seem to be better that the responses of teachers in the rural schools. Notwithstanding, the level of availability of digital infrastructure in schools in Rivers State are inadequate.

Conclusion

This study examined educational policies for bridging the digital divide for effective teaching and learning of business education in senior secondary schools in Rivers State. The findings revealed that the availability of digital infrastructure in both urban and rural schools is generally low, with no significant differences in teachers' perceptions across locations. Furthermore, educational policies intended to address the digital divide were found to be inadequate and poorly implemented, limiting their impact on business education delivery. These results suggest that although policy frameworks exist, gaps in infrastructure provision, policy execution, and monitoring continue to hinder equitable access to digital resources. Consequently, the digital divide persists, negatively affecting the quality and effectiveness of business education in Rivers State secondary schools.

Recommendations

6. The Rivers State government, in collaboration with private sector partners, should invest in providing reliable electricity, broadband internet connectivity, and functional ICT laboratories in both urban and rural schools to ensure equitable access to digital resources.

7. Existing ICT-in-education policies should be backed by actionable implementation strategies with regular monitoring and evaluation mechanisms. Clear timelines, accountability structures, and funding allocations must be established to bridge the gap between policy intentions and classroom realities.

8. Continuous professional development programs should be designed to equip business education teachers with digital skills and pedagogical strategies for ICT integration. This will ensure that the available technologies are used effectively to improve teaching and learning outcomes.

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