



Availability of Instructional Resources and Teacher Effectiveness in Public Senior Secondary Schools in Sokoto State, Nigeria

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ABSTRACT

In public senior secondary schools in Sokoto State, Nigeria, this study looked at the connection between teacher performance and the availability of instructional resources. For the study, a correlational survey research design was used. 2,831 teachers and 471 school administrators from the state's public senior secondary schools made up the study's 3,302 respondents. A convenient and proportionate sampling technique was employed to select a sample of 370 participants from the six educational zones in Sokoto State. Two researcher-adapted tools, the Teacher Effectiveness Rating Scale (TERS) and the Instructional Resources Rating Scale (IRRS), were used to gather data. Expert validation of the instruments produced content and face validity indices of 0.88 for IRRS and 0.61 for TERS. Reliability values of 0.87 for IRRS and 0.89 for TERS were obtained using the test-retest procedure at two-week intervals, demonstrating the devices' dependability for data collecting. The Pearson Product Moment Correlation Coefficient (PPMCC) was used to analyse the gathered data. The results showed a robust, positive, and statistically significant correlation between teacher effectiveness in Sokoto State's public senior secondary schools and the availability of computer-based and printed teaching tools. According to the study's conclusions, the government and educational stakeholders should guarantee the ongoing supply of sufficient and up-to-date printed teaching resources, including reference books, teacher manuals, and textbooks. In order to enhance teachers' digital competency and overall performance in the classroom, it also suggested that functional computer labs, internet access, instructional software, and frequent ICT training programs be made available.

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INTRODUCTION

Instructional materials are essential for the efficacy of the educational process, as they offer tangible experiences that enhance understanding, memory, and the application of knowledge. They encompass all resources and instruments, both conventional and contemporary, utilised by educators to facilitate instructional execution and achieve educational goals. Contemporary educational studies confirm that the judicious choice and application of teaching materials improve students' academic

performance, motivation, and participation in class (Smaldino, Lowther, Mims & Russell, 2019; Aina & Olanipekun, 2020). In modern education, teaching materials facilitate learner-focused and inclusive teaching methods by catering to various learning styles and capabilities. Instructional materials include several types of resources, such as printed materials and digital instructional tools.

Printed educational materials continue to serve as the foundation of formal educational frameworks globally. These materials encompass textbooks, reference texts, journals, instructional

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notes, manuals, and handouts, offering structured and standardised information in accordance with educational goals. Notwithstanding the advancement of digital technologies, printed resources remain essential for the distribution of knowledge, particularly in developing regions where digital infrastructure may be scarce. Research demonstrates that the proficient utilisation of printed educational materials enhances reading abilities, conceptual comprehension, and overall academic achievement in students (Yusuf & Afolabi, 2022; Okeke & Eze, 2021).

Digital teaching materials signify a significant progression in the delivery of education in the contemporary era. These assets encompass computers, tablets, instructional software, multimedia displays, online resources, virtual labs, and educational management systems. They facilitate interactive, cooperative, and individualised learning while improving digital literacy competencies essential for the 21st century. Contemporary research suggests that the use of digital educational tools enhances students' academic performance, involvement, and preparedness for a technology-oriented world (Aladejana, Ogunleye & Owolabi, 2023; OECD, 2021).

The efficacy of teaching is significantly influenced by the presence, accessibility, and application of varied instructional materials. The synergistic application of printed, graphic, display, project, and digital instructional materials improves educational quality and fosters significant learning experiences. As educational frameworks adapt to technological and sociological transformations, ongoing investment in teaching materials and educators' ability to employ them proficiently is essential for enhancing learning results and fulfilling educational objectives (UNESCO, 2021).

The efficacy of educators is a crucial factor influencing the quality of education and the learning results of students, as instructors act as the principal conduits for transforming curricular goals into significant learning experiences. Proficient educators exhibit the necessary professional expertise, instructional abilities, and

personal qualities essential for fostering students' cognitive, emotional, and physical growth. Contemporary research indicates that the efficacy of teachers is significantly linked to enhanced academic performance, favourable learning dispositions, and overall institutional success (Darling-Hammond, Flook, Cook-Harvey, Barron & Osher, 2020; Hattie, 2023). As a result, comprehending the fundamental aspects of teacher efficacy has consistently been a significant focus in educational research and policy development.

The efficacy of educators at public senior secondary institutions is intricately connected to the accessibility and sufficiency of instructional materials, which furnish essential instruments for lesson execution, classroom interaction, and student evaluation. Although educators' proficiency in lesson design, classroom management, communication, and topic expertise is vital, their capacity to convert these talents into impactful learning experiences is sometimes hindered by inadequate or badly preserved instructional resources. In Sokoto State, informal observations and first findings indicate that numerous schools have difficulties due to insufficient textbooks, visual aids, project materials, and digital resources, potentially obstructing educators from executing effective teaching methods. This scenario prompts apprehensions regarding the impact of resource availability on educators' capacity to conduct lessons proficiently, oversee classrooms adeptly, and enhance students' comprehension, thereby creating a vital connection between the overarching context of instructional resources and teacher efficacy, as well as the particular issue this research aims to tackle.

Educational instructional resources are an essential element of the teaching-learning process, since they furnish the material and technology assistance necessary for the attainment of curriculum goals. Instructional resources encompass all human and non-human assets utilised by educators to promote comprehension, ignite curiosity, and improve students' academic performance. These materials facilitate the conversion of theoretical concepts

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into tangible experiences, therefore enhancing understanding, memory, and practical use of information. Modern educational research underscores that the characteristics and efficacy of teaching are significantly influenced by the availability, accessibility, and appropriate use of instructional resources in the educational framework (Smaldino, Lowther, Mims & Russell, 2019; UNESCO, 2021).

Printed educational resources are the most conventional and prevalent type of instructional materials utilised in educational institutions. These encompass textbooks, reference materials, journals, workbooks, lesson plans, syllabi, and handouts that deliver organised and standardised content in accordance with curriculum standards. Printed materials function as credible repositories of information, directing educators' teaching methods and facilitating learners' autonomous exploration. Notwithstanding the proliferation of digital technologies, printed educational materials continue to be essential, especially in environments with restricted access to ICT resources, and research indicates that their presence enhances teaching efficacy and student academic achievement (Okeke & Eze, 2021; Yusuf & Afolabi, 2022).

Digital instructional resources on computers serve as contemporary instruments that facilitate teaching and learning within modern educational frameworks. These encompass computers, tablets, instructional applications, multimedia displays, online resources, virtual simulations, and learning management platforms. Theoretically, digital tools promote interactive, cooperative, and individualised learning experiences while improving digital literacy competencies. They enhance the availability of information, advocate for individualised learning, and facilitate creative teaching methodologies like blended and online education (OECD, 2021; Aladejana, Ogunleye & Owolabi, 2023).

Review of Related Literature

Kuhs, Lin, and Carter (2022) define printed instructional resources as various tangible teaching materials, including textbooks,

worksheets, instructor manuals, graphic charts, posters, and handouts, specifically crafted to facilitate instruction. These resources not only provide subject matter but also arrange topics in a sequential manner that assists educators in delivering lessons systematically (Kuhs, Lin & Carter, 2022). In a similar vein, Okeke and Ofoegbu (2021) observed that availability to high-quality printed materials bolsters educators' capacity to structure classes methodically, employ diverse instructional strategies, and support learning proficiently, so enhancing classroom results. Adeyemi and Salisu (2022) noted that the availability of organised printed materials promotes teacher independence, allowing educators to adopt creative methods while maintaining alignment with curriculum goals.

Musa and Adamu (2023) assert that the congruence of printed educational resources with national curriculum benchmarks is a vital factor influencing teacher effectiveness. Resources aligned with curriculum goals furnish educators with organised frameworks for class preparation, material presentation, and evaluation. This conclusion is corroborated by Onah and Eze (2021), who contended that resources linked with the curriculum diminish uncertainty in instructional emphasis, enabling educators to prioritise educational objectives and effectively structure activities for students with diverse capabilities.

Digital instructional tools have profoundly altered educational methodologies by facilitating interactive information dissemination, offering tailored feedback, and enhancing accessibility to online learning resources (Schindler, Morad, & Marsh, 2017). Numerous investigations have particularly analysed the impact of computer-assisted instructional media on teacher efficacy within secondary education settings. Eche and Okorie (2018) discovered that educators employing computer-assisted education in disciplines including mathematics, physics, and fine arts could engage students more effectively, deliver lessons with greater clarity, and promote superior accomplishment relative to colleagues who depended exclusively on traditional techniques.

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Research conducted by Oyakhirome (2025) shown that digital tools allowed educators to deliver prompt feedback, modify course tempo, and assess student comprehension instantaneously, all of which are essential markers of proficient teaching. These results indicate that digital resources not only improve content presentation but also facilitate differentiated instruction by catering to various learning styles and requirements, a crucial aspect of teaching efficacy (Ma, Dong, Jing, Zeng, & Sun, 2025).

Empirical studies carried out in Nigerian secondary schools highlight the substantial impact of computer-based educational resources on student achievement and the instructional methodology. Bawa (2016) discovered that secondary school pupils instructed by computer-assisted learning had markedly superior performance compared to their counterparts educated via conventional techniques. This enhancement was ascribed not solely to the technology but also to the educator's use of interactive and visually stimulating materials that improved lesson clarity, tempo, and student comprehension.

Suleiman and Abiola (2023) investigate the correlation between instructional resources and teachers' job performance in public secondary schools in Kwara State, Nigeria. This research employed a descriptive survey correlational methodology. The overall population comprised 7,703 educators from public secondary institutions, with a sample of 370 participants chosen using stratified and systematic random sampling. Data was gathered using a modified Instructional Resources and Teachers' Job Performance Questionnaire (TJPQ), which assessed the accessibility and use of instructional materials, encompassing print resources, as well as teachers' job performance. Face and content validity were confirmed through expert evaluation, while reliability was guaranteed through a pilot test and a satisfactory Cronbach's alpha. Data were examined employing descriptive and inferential statistical methods (SPSS, correlation).

Research indicated a statistically significant positive correlation between the accessibility and use of instructional resources

and the work performance of instructors in public secondary schools. Teachers with sufficient instructional materials, especially printed resources like textbooks, guides, charts, and syllabi, exhibited enhanced effectiveness in lesson planning, classroom execution, student assessment, and overall instructional oversight.

The findings additionally suggested that the mere presence of resources was inadequate without intentional application, as educators who purposefully incorporated instructional materials into their teaching demonstrated superior classroom management, more lucid concept explanations, and heightened student involvement. These results emphasise the significance of instructional materials as essential components in the educational process and illustrate how inadequacies in these resources might hinder educators' professional efficacy. The study concluded that instructional resources are a significant factor influencing teachers' job effectiveness in public secondary schools. The authors determined that augmenting the quality, pertinence, and availability of educational resources is crucial for bolstering teaching efficacy and fulfilling academic goals. Thus, the research suggested that educational authorities and school leaders emphasise the sufficient allocation of teaching resources, especially current printed materials, in public secondary institutions.

Furthermore, it advocated for ongoing professional development and in-service training for educators to enhance their proficiency in the effective use of existing resources. The research highlighted the necessity for regular oversight and upkeep of educational resources to guarantee ongoing utilisation and enduring enhancement in educator effectiveness and instructional standards.

Alegeand Afolabi (2011) investigated the use of computers and the internet by educators in secondary schools located in South-West Nigeria. Utilising a descriptive survey methodology, the demographic consisted of secondary educators throughout the area (specific population number not provided in summary sources). A substantial sample obtained by purposive and stratified sampling comprised



educators from institutions recognised for their computing resources. The tool utilised was a Teachers' Computer and Internet Usage Questionnaire, which was authenticated by regional educational specialists and produced dependable outcomes during preliminary testing. Data were gathered via the distribution of questionnaires and examined utilising descriptive statistics and Pearson correlation.

Research indicated that educators' utilisation of computer and Internet resources in secondary schools in South West Nigeria exhibited a substantial positive correlation with teaching efficacy. Educators that used digital resources into their lesson design, teaching methods, and student involvement demonstrated superior performance, providing clearer elucidations, managing classroom dynamics adeptly, and promoting interactive learning settings. Descriptive statistics and Pearson correlation analyses validated that increased use of ICT resources was associated with enhanced teaching performance, indicating that access to and proficient use of computers directly facilitates lesson preparation, content delivery, and comprehensive classroom management.

The findings of the study indicated that using computer and Internet resources into classroom teaching boosts teacher efficacy and leads to better learning results. The writers underscored that in the absence of proper access to ICT resources and adequate training, educators cannot fully leverage the advantages of technology in instruction. The research suggested that educational authorities should focus on investing in ICT infrastructure in secondary schools, guarantee the widespread availability of operational computers and Internet access, and establish organised professional development initiatives to equip teachers with skills for effective computer and Internet use.

STATEMENT OF THE PROBLEM

In order to support successful teaching and learning, teachers in public senior secondary schools should have sufficient access to a variety of instructional resources, such as textbooks, graphic materials, display aids, project resources,

lab equipment, and computer-based technologies. Lesson planning, instructional delivery, classroom management, student evaluation, and subject matter understanding are all improved by the availability and appropriate use of these tools. However, data from Nigeria and Sokoto State generally shows that many public secondary schools use outdated and insufficient teaching resources, which limits teachers' capacity to use learner-centred pedagogies and provide high-quality instruction (Gumbi & Bashar, 2021).

Significant shortages of teaching and learning resources, poor classroom facilities, and restricted access to educational resources were found in many public schools throughout the state during a school census and education sector assessment carried out by the Sokoto State Government in partnership with UNICEF. These factors have a negative impact on teachers' instructional effectiveness (UNICEF & Sokoto State Government, 2021). In a similar vein, the United States Agency for International Development (USAID, 2022) found that teachers' ability to successfully teach the curriculum and meet students' learning needs was hampered by inadequate instructional resources and unfavourable learning environments in Northern Nigerian schools, including Sokoto State.

Persistently low learning outcomes and diminished teacher effectiveness are the results of this deficiency. According to reports from the National Examinations Council (NECO) and the West African Examinations Council (WAEC), students' poor performance in secondary school exams is frequently attributed to inadequate instructional materials, subpar teaching facilities, and ineffective instructional delivery (WAEC, 2023; NECO, 2023). Teachers are frequently forced to rely primarily on traditional lecture techniques when instructional tools are lacking, which restricts practical demonstrations, classroom interaction, and students' active participation in learning. As a result, teachers' performance is severely hampered in areas including lesson delivery, classroom management, assessment, and students' academic success.

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In many public senior secondary schools in Sokoto State, the problem of insufficient instructional resources persists despite numerous interventions by the government and development partners. In light of this, this study aims to investigate the effectiveness of instructors and the availability of instructional materials in Sokoto State's public senior secondary schools.

Objectives of the Study

The study seeks to;

1. Find out the relationship between availability of printed resources and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria.
2. Find out the relationship between availability of computer based instructional resources and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria.

Research Hypotheses

The following hypotheses will be tested at .05 level of significance.

H₀₁: There is no significant relationship between the availability of printed instructional resources and teacher effectiveness in public senior secondary school in Sokoto State, Nigeria.

H₀₂: There is no significant relationship between the availability of computer based instructional resource and teacher effectiveness in public senior secondary school in Sokoto State, Nigeria.

METHODOLOGY

A correlation survey research design was used in the study. All 471 administrators (principals and vice principals) and 2,831 teachers in Sokoto State's public senior secondary schools make up the study's population. Using Research Advisor (2006) as a guidance, a convenient and proportionate sampling procedure was employed to choose a sample size of 24 administrators and 346 instructors from the 3,302 total population. For this investigation, two instruments were modified. The tools are closed-ended questionnaires, meaning that participants can only tick one of the suggested answers. A five-point rating system is

used for the instruments. Strongly Agree (SA=70-100%), Agree (A=60-69%), Undecided (U=50-59%), Disagree (D=40-49%), and Strongly Disagree (SD=0-39%) were the rankings on the scale.

The instruments have the following captions: (i) Instructional materials Rating Scale (IRRS), which has two indicators: computer-based instructional materials and printed instructional resources. The Teacher Effectiveness Rating Scale (TERS), which includes indicators like lesson planning, student evaluation, classroom management, and communication, plus thirty items on instructional resources made up the instrument. There were fifteen items on administrative effectiveness in the instrument. Specialists from Sokoto State University's Department of Educational Management and other specialists from the Faculty of Education received the instruments for validation. Experts evaluated the instruments for relevance, clarity, and topic matter coverage. Based on their observations, recommendations, and moderation, the researcher made the necessary adjustments. The instruments were then determined to be functional. The Instructional Resources Rating Scale (IRRS) and the Teacher Effectiveness Rating Scale (TERS) have content validity indices of 0.88 and 0.61, respectively.

The instrument's reliability indexes were determined using the test-retest procedure. Twenty-four (24) respondents 20 teachers and four administrators at Government Day Secondary School in Arkilla who are not included in the sample but are part of the population were given the instruments. The respondents were given the same tests again at the same location precisely two weeks later. The Pearson Product Moment Correlation Coefficient (PPMC) was then used to correlate the two distinct scores. Specifically, IRRS and TERS were shown to have dependability indexes of 0.87 and 0.89, respectively. This suggested that the tools were deemed appropriate for the research. The direct approach of administering the questionnaire was used. The participants received comprehensive instructions on how to correctly complete the instruments. Research hypotheses were tested at



the .05 level of significance using inferential statistics of the Pearson Product Moment Correlation Coefficient (PPMCC).

RESULTS

Table 1: Pearson Product Moment Correlation statistics showing relationship between availability of printed instructional resources and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria.

Variables	N	Mean	Std.Deviation	r-Cal	p-Value	Decision
Availability of Printed instructional resources	410	3.92	1.171	.597**	.000	H ₀ Rejected
Teacher Effectiveness	410	3.62	1.547			

($\alpha = .05$)

The Pearson Product Moment Correlation (PPMC) Analysis for Relationships is summarised in Table 1. between the efficacy of teachers in public senior secondary schools in Sokoto State, Nigeria, and the accessibility of printed educational materials. With a correlation value of $r(410) = .597^{**}$, $p < .05$, the results shown in Table 1 demonstrate a substantial and statistically significant positive link between the availability of printed instructional resources and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria.

Given that the p-value is less than 0.05, this result highlights the strong correlation between teacher performance and the availability

Research Hypotheses One:

There is no significant relationship between availability of printed instructional resources and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria.

of printed instructional resources in public senior secondary schools in Sokoto State, Nigeria. As a result, the null hypothesis (H₀₁), which proposed that there is no meaningful connection between teacher effectiveness and the availability of printed instructional resources in public senior secondary schools in Sokoto State, Nigeria, was rejected.

Research Hypotheses Two:

There is no significant relationship between availability of Computer-based instructional resources and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria.

Table 2: Pearson Product Moment Correlation statistics showing relationship between availability of Computer-based instructional resources and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria.

Variables	N	Mean	Std.Deviation	r-Cal	p-Value	Decision
Availability of Computer-based instructional resources	410	3.90	1.291	.677**	.000	H ₀ Rejected
Teacher Effectiveness	410	3.50	1.709			

($\alpha = .05$)

Table 2 presents a summary of the Pearson Product Moment Correlation (PPMC) analysis about the relationship. The relationship between the accessibility of computer-based educational materials and the efficacy of teachers in public senior secondary schools in Sokoto State, Nigeria.

The findings illustrated in table 2 indicate a robust and statistically significant positive correlation between the accessibility of computer-based instructional resources and teacher efficacy in public senior secondary schools in Sokoto State, Nigeria, with a correlation coefficient of $r(410) = .677^{**}$, $p < .05$. This discovery highlights the substantial correlation

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between the accessibility of computer-based instructional materials and the efficacy of teachers in public senior secondary schools in Sokoto State, Nigeria, given that the p-value is below the 0.05 threshold. Consequently, the null hypothesis (H02), which asserted that there is no significant correlation between the availability of computer-based instructional tools and teacher effectiveness in public senior secondary schools in Sokoto State, Nigeria, was dismissed.

Summary of the Findings

The summary of finding shows that:

1. There is strong, positive and significant relationship between availability of printed instructional resources and teacher effectiveness in public senior secondary school in Sokoto State.
2. There is strong, positive and significant relationship between availability of computer-based instructional resources and teacher effectiveness in public senior secondary school in Sokoto State.

DISCUSSION OF THE FINDINGS

Table 1's findings indicated a robust, affirmative, and statistically significant correlation between the accessibility of printed instructional materials and teacher efficacy in public senior secondary schools in Sokoto State. This discovery suggests that the presence of printed educational resources, including textbooks, manuals, charts, workbooks, journals, and reference materials, plays a crucial role in enhancing teachers' effectiveness in the classroom, lesson planning, instructional execution, and student evaluation methods. The discovery additionally implies that educators with sufficient printed teaching materials are more inclined to structure courses efficiently, elucidate topics distinctly, and encourage active engagement from students throughout class.

The accessibility of these resources may further bolster educators' self-assurance, pedagogical proficiency, and capacity to execute the curriculum effectively. This discovery supports the research of Suleiman and Abiola (2023)

indicating that sufficient availability of printed instructional resources markedly enhances teachers' efficacy and students' academic performance in secondary education. Their research highlighted that printed materials function as crucial instructional tools that facilitate efficient information dissemination and classroom engagement. Their research asserted that printed educational materials offer educators dependable content assistance that improves instructional effectiveness and teaching productivity.

Similarly, the current discovery aligns with the perspective that educational resources are vital factors influencing teacher efficacy, as they enhance lesson structuring, augment idea transmission, and bolster significant teaching and learning experiences. Consequently, the robust positive correlation identified between the accessibility of printed instructional materials and teacher efficacy indicates that augmenting the availability of printed educational resources in public senior secondary schools in Sokoto State may significantly improve instructional effectiveness and overall educational standards.

Table 2's findings indicated a robust, affirmative, and significant correlation between the accessibility of computer-based instructional materials and teacher efficacy in public senior secondary schools in Sokoto State. This discovery indicates that the availability of computer-based teaching resources, including computers, laptops, internet connectivity, educational software, and digital learning platforms, markedly improves teachers' instructional efficacy. It indicates that educators exhibit more efficacy in lesson planning, content presentation, evaluation, and classroom engagement when provided with sufficient ICT-based teaching resources.

The discovery additionally implies that digital resources enhance contemporary pedagogical methods, allowing educators to provide lessons in a more interactive, captivating, and learner-focused manner. Consequently, the efficacy of educators is augmented via improved access to teaching resources, enhanced idea exchange, and heightened student engagement in educational activities. This discovery aligns with the assertion made by Alegea and Afolabi (2011)



that educators equipped with sufficient computer-based teaching resources exhibit enhanced instructional proficiency, superior lesson planning, and improved student academic outcomes. Their research asserted that technology-driven educational resources improve pedagogical efficacy by fostering digital literacy, engaging learning experiences, and streamlined curriculum implementation.

Similarly, the current discovery aligns with the perspective that digital instructional tools are crucial catalysts for educational advancement as they facilitate learner-centred pedagogy and enhance the quality of teaching and learning results. Consequently, the robust positive correlation identified between the accessibility of computer-based educational resources and teacher efficacy suggests that enhancing ICT infrastructure in public senior secondary schools in Sokoto State could markedly improve instructional quality, teacher performance, and overall educational effectiveness.

CONCLUSION

The research determines that all types of instructional resources analysed, both printed and digital, have a robust, affirmative, and substantial correlation with instructor efficacy. This suggests that an enhancement in the accessibility of these instructional tools is probable to elevate teachers' instructional efficacy, classroom oversight, and overall performance. Consequently, the research indicates that teaching materials are vital factors influencing teacher efficacy, and their sufficiency is crucial for enhancing educational standards. The overarching conclusion is that significant improvement in teacher efficacy inside public senior secondary schools in Sokoto State is mostly contingent upon augmented provision, appropriate administration, and efficient application of various instructional resources.

RECOMMENDATIONS

In light of the study's findings, the subsequent recommendations were proposed:

1. Given the robust, affirmative, and substantial correlation between printed

educational resources and teacher efficacy, it is imperative for the government and educational stakeholders to prioritise the ongoing supply of sufficient and current printed materials, including textbooks, teachers' manuals, and reference texts. Guaranteeing an adequate supply will directly improve educators' lesson planning, instructional precision, and classroom execution efficacy.

2. Given the robust correlation between computer-assisted educational tools and teacher efficacy, educational institutions ought to be furnished with operational computer labs, internet access, and instructional software. Moreover, ICT training initiatives ought to be conducted consistently for educators to elevate their digital proficiency and guarantee the successful incorporation of technology into pedagogical practices, thereby augmenting overall teaching efficacy.

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