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Human and Material Resources Availability, Deployment and Quality of Instruction in Public Universities in Southwest Nigeria

Olugbenga Timothy Ajadi

PhD, Senior Research Fellow, Department of Educational Management, Faculty of Education, University of Free State, South Africa, <https://orcid.org/0000-0003-0751-0786>

***Corresponding author:** ajagbesope@yahoo.co.uk.

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Abstract: The quality of instruction in the university, to a large extent, depends on the human and material resources available and deployed for instructional delivery. Therefore, this study investigated the availability, deployment, and quality of human and material resources in public universities in southwest Nigeria. The study population consisted of all Deans and students from federal and state-owned universities in southwestern Nigeria that were established before 2023. A sample of 29 Deans and 300 students was selected from the two selected universities. Two sets of questionnaires were used to elicit information from respondents. The HMRADQ was used to elicit information from the Deans, while HMRADIQQ was used to elicit information from the students. The instruments were validated and trial-tested. Simple percentages, descriptive and multiple regression statistics were used to answer the research question and test the formulated hypotheses. The results showed that the electronic board was the material resource that is most critically not adequately available, followed by workbooks, presentation projectors and internet facilities. The study also established a statistically significant relationship between human resources and instructional quality in universities in southwest Nigeria. The study recommends that university administrations in southwestern Nigeria should appeal to alumni of the institutions for donations of material resources that are critically in short supply. The study

concluded that for universities in the southwest of Nigeria to provide quality instruction and for their graduates to be among the world-class, there is a need for adequate human and material resources.

Keywords: Human Resource Availability, Material Resource Availability, Public Universities, and Quality of Instruction.

Introduction

The significance of instructional quality in a university cannot be overemphasized. This is because instructional quality is a sine qua non for quality university education. In addition, university education plays a significant role in building human capacity for local and international consumption. Quality instruction is evident in student reasoning and problem-solving capabilities, as well as their performance in internal, external, and professional examinations, and the skills they possess. It is crucial to provide students with high-quality instruction to develop human capital that yields quality returns to society. University education is a vital instrument for economic growth, development and a positive transformation of the country's economy (Amajuoyi, 2022). Instructional quality concentrated on instructional input and student outcomes according to Kadiri (2021). Despite the importance attached to instructional quality in our educational institutions, the quest for its improvement in Nigerian universities still remains a significant concern, considering the quality of products from the university. This may not be unrelated to the university's people and material resources.

Research Problem

The availability and deployment of human and material resources are crucial to the quality of instructional delivery in the university. This will help produce employable graduates who will make significant contributions to the country's development and progress. In Nigeria, there is a challenge with the material and human resources available to universities. Despite concerns expressed by university administrations in Nigeria regarding the availability and deployment of human and material resources in their respective universities, the Federal Government of Nigeria continues to establish new universities at a regular rate. Therefore, this study investigated the availability, deployment, and instructional quality of human and material resources in Universities in Southwest Nigeria.

Research Focus

The primary objective of this study is to examine the level of availability and deployment of resources in public universities in southwest Nigeria. The study focuses on only the public universities located in the southwestern part of Nigeria.

Research Aim and Research Questions

What is the level of availability of material resources in universities in the southwest of Nigeria?

Hypotheses

The following hypotheses were formulated and tested:

H₀₁. Human resource availability has no significant influence on instructional quality in universities in the southwest of Nigeria

H₀₂. Human resource deployment has no significant influence on instructional quality in universities in the southwest of Nigeria

Literature Review

According to Adeleye (2019), material and human resources encompass facilities and personnel. That can give help or support in order to achieve a goal or objective set by an individual, a group of individuals or an organisation. Thus, human and material resources in educational institutions, according to Adeleye (2019), encompass personnel as well as physical and material elements that are necessary to support the achievement of educational institutions' goals and objectives. According to Adeogun (2019), human and material resources comprise people, as well as physical and non-physical resources, which are utilized to transform raw materials into finished products. Adekanmi et al (2016) defined it as the set of people that make up the workforce of a human organisation. Patrick (2020) posited that human resources encompasses all activities related to the ongoing administration of employees in an organization. As Ohuche (2023) rightly noted, human resources is still relevant and is the most adaptive resource of any organization.

Human resources in the university comprises the Vice-Chancellor, Deputy Vice-Chancellors, Principal Officers, Deans, Heads of Department, lecturers, and the non-teaching staff in the university. Davies (2020) defined human resources in the university as the people with different expertise and specialties who are an integral part of the university. The author further stated that human resources in the university comprise all human beings working in the university who are not incapacitated from making their contributions to the achievement of the university's mission and vision. They may be university staff, including permanent and temporary staff, contractors, consultants, part-time staff, or any other person with a working relationship with the university. In the opinion of Fakorede and Derekin (2022), any human being who is compensated for providing expertise or knowledge to assist the university in achieving its stated goals is considered a key contributor. Compared to other resources, such as equipment, human resources require the most management, which is the reason why the Human Resource unit is created in a human organisation.

The quality of instruction in the university heavily relies on the human resources that are distributed throughout the university. Hence, all the activities revolve around the human resources in the institution. Researchers (Hannaniyah, 2019; Njoku and Ndoh, 2024; Noah, 2018; Usman, 2016) pointed out that the university will be aimless without the institution's human resources being available and deployed. Even in the larger community, the country depends on human resources for wealth creation, survival and relevance among the committee of nations. The implication of this is that no country can stand without human resources. This might be why Adeyanju et al. (2011) stated that human resources are responsible for utilizing other resources to facilitate production. According to Mendzyl and Phillipo (2019), the university administration is responsible for recruiting and deploying the necessary lecturers to various faculties and departments within the university. This will enable the university to pave the way for quality instruction and employable graduates who will contribute to the country's gross domestic product.

Brew et al (2021) noted that the quality of instruction depends on the human resources providing it. In the university, the employment and deployment of lecturers are complex due to the complexities in the required human resources for various specialties (Mejoni et al., 2018). Kasabuni et al (2020) concluded that the fundamental need for quality instruction in the university is that lecturers must be available appropriately according to specialization. This suggests that lecturers are key stakeholders in the instructional delivery process at the university. Interestingly, the availability and placement of instructors at Nigerian colleges have been a subject of discussion over the years. A survey by the National Universities Commission (2022) on the demand and supply of lecturers for the existing 201 universities (48 federal, 54 state and 99 private) in Nigeria, with about 2.1 million students, revealed that there are only 100,000 lecturers for over 200 universities. This number was grossly inadequate. Despite this, the

government established an additional 11 federal and state universities in 2023 (National University Commission, 2024). In the same direction, Paymaster and Lyndon (2014) found that the unavailability of lecturers for instructional delivery in universities is a common issue across developing countries. In addition, the authors found that its unavailability hurt the smooth operation of the sampled universities. Noted that there is no university that can provide quality instruction without adequate deployment of lecturers across disciplines and departments. In Mejoni, et al (2018). Found that the unavailability of lecturers to teach contributed immensely to the low quality of graduates from Nigerian universities.

In addition, Benson (2018) asserted that the success of universities, regardless of ownership, is directly linked to how effectively lecturers deliver lessons in the classroom. The researcher added that the extent to which university education succeeds will depend, to a large extent, upon the quality of the lecturers engaged in the university. He also pointed out that all ingredients needed for a quality university education include the competency of the lecturers responsible for teaching subject content. In another view, Nwamuana (2018) noted that the availability of lecturers and material resources affects the overall efficiency and effectiveness of an educational institution. This implies that for a university to be effective and efficient, it needs to have adequate human and material resources.

Material resources play a critical role in instructional delivery. They are essential for teaching and learning. It comprises natural and physical assets that are useful to human beings. It can also be described as physical assets and materials required for the organisation's operations. According to Adedeji (1997) and Kadiri (2021), material resources are tangible assets used for production or to enhance output. Unlike human resources, which is intangible and relates to skills and human knowledge, material resources can be directly quantified. They are constantly subject to change, especially with advancements in technology. According to Adeoye and Popoola (2011), in the university, material resources refer to teaching materials compiled by lecturers, school administration, and government for teaching and learning purposes. Akomolafe and Adeola (2020) defined material resources as relevant course materials, laptops, computers, textbooks, whiteboard charts and projectors provided for effective teaching and learning. According to Barney et al. (2023), material resources refer to the physical assets and supplies required for an organization's activities. Raw materials, inventory, machinery, tools, and infrastructure are all included in this. For manufacturing, production, and service provision, material resources are essential.

According to Agabi (2010), as cited in Kadiri (2021), material resources are defined as devices developed or procured to assist in teaching and learning. Material resources give a better understanding and make lessons less stressful for teachers and learners. Students will be deprived of quality instruction without essential resources, which are crucial for achieving educational goals and objectives. Agbonghale and Adavbiele (2018) also observed that material resources are fundamental requirements that must be met in order to improve academic success. This is because material resources help to enrich learners' understanding and reinforce instructional quality in the classroom (Ajadi, 2020). According to Akungun (2017), material resources provide students with the opportunity to participate in class and facilitate a deeper understanding actively. However, studies by Akinsanya (2016) and Bizimana and Orodho (2014) have shown that material resources enhance instructional quality and also improve students' performance. To improve instructional quality in schools, adequate material resources in various forms must be available and utilized by teachers. This implies that it is also vital for material and human resources to be available and deployed. In the absence of lecturers in the universities, there is no way instruction could be passed to the students. However, to achieve the objective of university education as declared by the Federal Republic of Nigeria (2014), human and material resources should be available and deployed appropriately across the university for quality instruction.

Material resources, which are educational inputs, are of vital importance to instructional delivery in the university. Amadi and Ezeugo (2019) opined that the use of material resources would solidify

learning and facilitate the discovery of facts that the students would not easily forget. Adeogun and Osifila (2017) reported that the use of material resources in teaching will enable students to learn more, discover themselves, and explore their potential. Material resources can generally be described as materials used to support instructional delivery and knowledge acquisition. Alade and Lemo (2019) reported that in order to provide high-quality instruction in skills-based courses at educational institutions, material resources are crucial. Therefore, the potential for any educational system to succeed or fail is determined by the availability and utilization of both human and material resources. The researchers pointed out that inadequate physical facilities, ICT facilities, internet bandwidth, insufficiently skilled educators, poor remuneration, and working conditions have been identified as some of the major problems affecting instructional quality in institutions of higher learning in Nigeria.

Material resources for instructional delivery in the university as mentioned by the Federal Republic of Nigeria (2014) are: furniture, equipment, textbooks, course manuals, workbooks, handouts, databases, study guides, reference books, visual and audio-visual equipment, computer, laptops, tablets, ICT laboratory, equipment, network infrastructure, presentation projector, research sources, electronic board and temporary marker, desks and chairs, library books, chemicals, musical instruments, art supplies, sports and fitness equipment, building materials, among others. These tools enable lecturers to effectively illustrate their understanding of instruction in the class. However, a study by Enaohwo (2018) on the availability of material resources found that these resources were scarce in most universities, particularly public universities in Nigeria. Ann (2019), in a study on the teaching resources needed to teach entrepreneurship in business studies classes in secondary schools, discovered that the majority of secondary schools lack the required material resources for instructional quality in Business Studies. Ezeugbor and Okorji (2019) defined university material resources as physical assets, technology, and infrastructure that are essential to the university's operations and performance. Provision of these materials for instructional delivery is a necessity. However, Fashiku et al. (2019) found that material resources, such as internet facilities, electronic boards, course manuals, workbooks, presentation projectors, and databases, which are necessary for teaching in educational institutions in Nigeria's North Central Geopolitical Zone, are all found to be unavailable.

To ensure quality instruction in universities, specific basic resources must be available and effectively deployed. These basic resources are human and material. According to Osarenren-Osaghae and Irabo (2012), no educational system around the world can match the caliber of its teachers. Thus, the instructional quality in any university around the world largely relies on the availability and deployment of lecturers in various disciplines. As Chinedu and Ajadi (2023) noted, human and material resources have been considered crucial in universities for delivering quality instruction. It is not a gainsaying that human and material resources significantly influence students' performance positively at various levels of education. These resources, however, make teaching and learning more practical and evolving. However, there are opposing views on the adequacy of human and material resources available for delivering quality instruction in many universities in the southwest of Nigeria.

Also, government and university administration have severally been challenged on the neglect of the adequate provision of necessary human and material resources needed in the universities, such as lecturers on various cadres across disciplines, buildings, furniture, equipment, textbooks, course manuals, workbooks, databases, study guides, reference books, visual and audio-visual equipment, computer, laptop, tablets, ICT laboratory, as well as lecturers. The unavailability of these resources, however, does not allow quality instructional delivery. According to Osarenren-Osaghae and Irabo (2012), it is essential to have sufficient and qualified human resources for teaching all courses offered at the university. Without these as implementing factors, the goals of university education can never be achieved.

Studies abound on instructional quality, and each of the variables has been independently examined at lower education levels in Nigeria. Hence, this study will combine the influence of two independent variables (availability and utilization) on the dependent variable (quality of instruction) at the university level of education.

Materials and Methods

The research design used in the study was descriptive. Scientists and researchers utilize descriptive study designs as powerful tools to collect data about a specific population or topic. This type of research design accurately and thoroughly portrays the characteristics and behaviors of a specific community or subject. The design offers important insights that can guide future studies and aid researchers in developing a deeper understanding of the availability of material resources and their impact on the quality of instruction in educational institutions in southwest Nigeria.

The study population comprised all Deans and students from public universities in southwestern Nigeria. This includes universities owned by the state and federal government established in the southwest of Nigeria prior to 2023. A multi-stage sampling procedure was employed to select participants for this study. The first stage was the use of purposive sampling technique to select all the federal government owned universities established before 2023 in the study area This include: University of Lagos; Federal University of Agriculture, Abeokuta; University of Ibadan, Obafemi Awolowo University, Ile-Ife; Federal University of Health Sciences, Ila-Orangun, Federal University of Technology, Akure; and Federal University, Oye-Ekiti. This study excludes Adeyemi Federal University of Education, Ondo, Federal University of Medical Sciences, Abeokuta, and the University of Ilesha, which was founded in 2023. Furthermore, this study does not include the Federal University of Agriculture and Developmental Studies in Iragbuji, Osun State; the Federal University of Technology and Environmental Studies in Iyin-Ekiti, Ekiti State; and the Tai Solarin Federal University of Education in Ijagun, Ijebu Ode, which were founded in 2025 (National University Commission, 2025). The second stage involved stratifying the universities into specialized and general universities. The specialized universities include the Federal University of Agriculture, Abeokuta; the Federal University of Health Sciences, Ila-Orangun; and the Federal University of Technology, Akure. The remaining four are general universities.

The third stage involved using a simple random technique to select two universities (Obafemi Awolowo University - OAU, Ile-Ife, and University of Ibadan - UI) from the four general universities identified. Thereafter, the total sampling technique was used to select all 29 Deans from the selected universities, and a disproportional sampling technique was employed to select 150 students each from the selected universities. The choice of disproportional sampling techniques was because the sample was not proportional to the student population in the selected universities. The researcher personally administered the instruments for the 29 Deans from the two universities, while two research assistants (one for each university) were employed to administer the instruments to the students.

Sample and Participants

The sample for this study comprised 329 participants. This includes 13 Deans and 150 students selected from all faculties at Obafemi Awolowo University, Ile-Ife, Nigeria, and 16 Deans and 150 students selected from all faculties at the University of Ibadan, Nigeria.

Instrument and Procedure

Two sets of questionnaires were used for this study. These are: Human and Material Resources Availability and Deployment Questionnaire (HMRADQ) and Human and Material Resources Availability, Deployment and Instructional Quality Questionnaire (HMRADIQQ). The first questionnaire was designed

for the Deans to provide information on the level of availability and deployment of human and material resources. In contrast, the second questionnaire was designed to elicit students' responses on the influence of the availability and deployment of human and material resources on instructional quality. The instruments were handed over to experts in item generation for their input before the final copies were produced. The observations pointed out by the experts are effective before the production of the final copies for administration to the respondents. To ascertain the validity and reliability of the instrument, a sample of 30 students and 10 deans from the University of Ilesha, which was not part of the study's population, participated in two testing runs of the questionnaire, spaced two weeks apart. The Cronbach's Alpha method was used to analyze the trial-tested questionnaire statistically. According to the study, the reliability indices for the Dean's questionnaire and the students' questionnaire were 0.92 and 0.96, respectively. This was sufficiently high to make the instrument considered dependable for administration. The researcher, with the assistance of two research assistants who were trained by the researcher, administered the instruments at the two universities.

Data Analysis

A simple percentage of the descriptive statistics was used to answer the only question raised for the study on the level of availability of material resources in universities in the southwest of Nigeria. At the same time, multiple regression analysis was used to test the only hypothesis formulated for the study, examining the influence of human resource availability on instructional quality at the 0.05 level of significance.

Results

To answer the question on the level of availability of material resources in universities in the southwest of Nigeria, five items were used to measure the availability of material resources. The result was presented in Table 1

Tables

Table 1: Availability of Material Resources in Southwest Universities

N=329

Items	Adequate	Not Adequate
Electronic Board	30 (9.12%)	299 (90.88%)
Presentation Projector	105 (31.91%)	224 (68.09%)
Workbooks	97 (29.48%)	232 (70.52%)
Internet Facilities	127 (38.60%)	202 (61.40%)
Course Materials	216 (65.65%)	113 (34.35%)

Source: Researcher's Field Work, 2025

The result presented in Table 1 shows the availability of material resources in universities in the southwest of Nigeria. The results showed that the electronic board was not adequately available, with 299 (90.88%) respondents agreeing that it was inadequate, while 30 (9.12%) agreed that it was adequately available. Additionally, presentation projectors were not adequately available, with 224 (68.09%) of the total respondents agreeing that they were not available, while 105 (31.91%) agreed that they were available. The results also showed that 232 (70.52%) of the respondents agreed that workbooks were not adequately available, while 97 (29.48%) agreed that they were adequately available. Internet facilities were deemed inadequate, as 202 (61.40%) of the respondents agreed that they were not adequately available, while 127 (38.60%) agreed that they were adequately available. The last index

to measure material resources in the selected universities is course materials, which were adequately available, as 216 (65.65%) of the respondents agreed that they were adequately available. In comparison, 113 (34.35%) disagreed that they were not adequately available. The results showed that the electronic board was the material resource that was most critically not adequately available, followed by workbooks, presentation projectors, and internet facilities. However, in terms of adequacy, it was only the course material that was adequately available in the selected universities.

Figure 1

Material Resources Availability

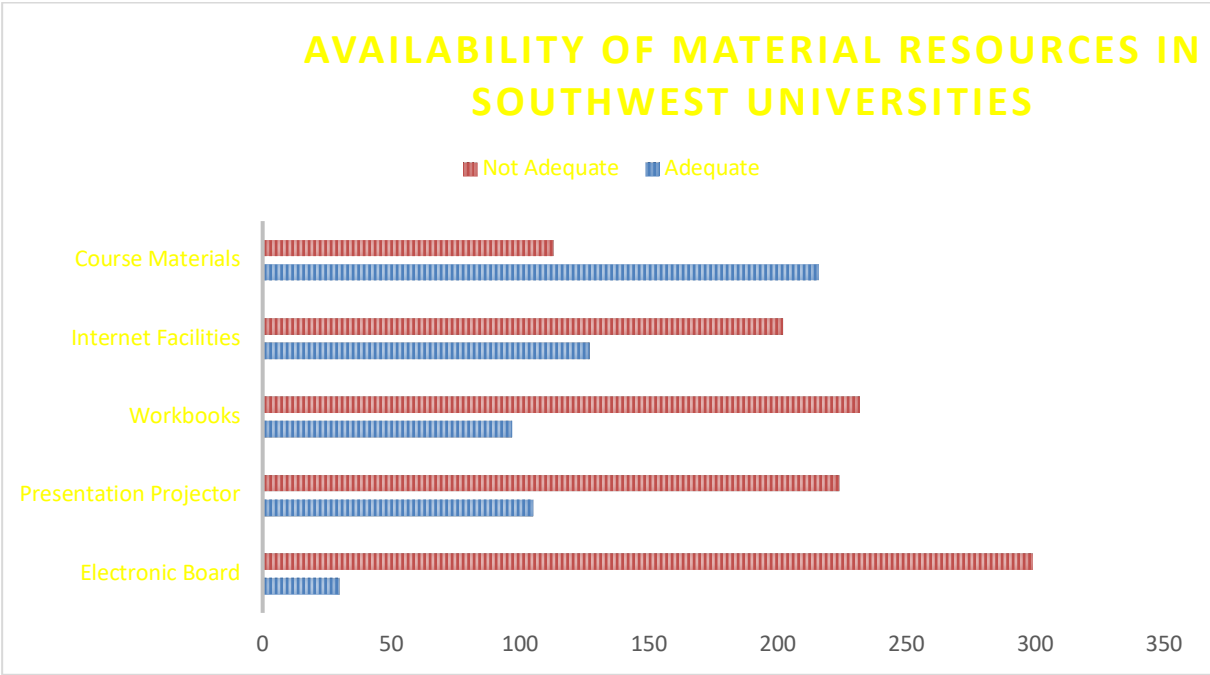


Figure 1 is a bar chart showing that course materials were the only material that was adequate in the southwest universities. However, the electronic board, workbooks, presentation projector, and internet facilities are not adequate as presented on the bar chart.

Testing the Hypotheses

H₀₁: Human resource availability has no significant influence on instructional quality in universities in the southwest of Nigeria

To test the hypothesis on the influence of human resource availability on instructional quality, six variables were used to measure the independent variable (human resource availability) on the dependent variable (instructional quality) as presented using multiple regression in Table 2

Table 2

Multiple Regression of Human Resource Availability on Instructional Quality

Variables	Mean	Standard Deviation	Correlation Indices		Multiple Regression	
			R	Sig	B	B
Instructional Quality	2.9908	.63789			2.799	
Lecturer Turnover Rate	.6184	.48641	.210	.000	.344**	.260

Absenteeism in School	.9289	.25725	.092	.036	.216	.087
Absenteeism in Class	.8658	.34133	-.006	.456	-268**	-.143
Retention Rate	.8684	.33848	.086	.047	.169	.090
Lecturers Satisfaction	.7605	.42732	.016	.377	-.001	.000
Replacement Period	5211	.50022	-.101	.025	-.256**	.201

** Significant at lessessat ≤ 0.05

The multiple regression analysis in Table 2 revealed a significant influence of human resource availability and instructional quality on universities in southwest Nigeria. Hence, the hypothesis states that human resource availability has no significant impact on instructional quality in universities in southwestern Nigeria. is hereby rejected. On Table 2, there was a statistically significant influence of lecturers' turnover rate, absenteeism in school, retention rate, and replacement period (p). However, Lecturers' absenteeism in schools and lecturers' satisfaction negatively influence instructional quality in universities in southwest Nigeria. The human resource availability components with statistically significant influence on instructional quality were: lecturers' turnover rate, absenteeism in school, retention rate, and replacement period. The multiple regression model of the components of human resource availability produced an R² of 0.091, F(6, 373) = 6.243, p < 0.05.

H₀₂. Human resource deployment has no significant influence on instructional quality in universities in the southwest of Nigeria

To test the hypothesis on the influence of human resource deployment on instructional quality in universities in the southwest, Nigeria, four items were used to measure the influence of the dependent variable on the independent variables. The result is presented in Table 3 using multiple regression.

Table 3

Multiple Regression of Human Resource Deployment on Instructional Quality

Variables	Mean	Standard Deviation	Correlation Indices		Multiple Regression	
			R	Sig	B	B
Instructional Quality	2.9908	.63789			.710	
Lecturer Turnover Rate	3.1000	.85058	.500	.000	.304**	.405
Absenteeism in School	3.1421	.81917	.379	.000	.173**	.222
Absenteeism in Class	3.3158	.86580	.402	.000	.240**	.326

** Significant at lesssat ≤ 0.05

The multiple regression analysis in Table 3 revealed a statistically significant influence of lecturer turnover rate, absenteeism in school, absenteeism in class, and instruction quality on southwest universities (R ≥ 0; p < 0.05). The hypothesis, which states that human resource deployment has no significant influence on instructional quality in universities in the Southwest, Nigeria, is hereby rejected. All the human resource components had a significant influence on instructional quality (p < 0.05). The multiple regression model of the components of human resource deployment produced R² = 0.418, F(3, 376) = 89.848, p < 0.05

Discussion

The results obtained demonstrated the availability of material resources in universities in southwestern Nigeria. The results showed that the electronic board was not adequately available, with

299 (90.88%) respondents agreeing that it was inadequate, while 30 (9.12%) agreed that it was adequately available. Additionally, presentation projectors were not adequately available, with 224 (68.09%) of the total respondents agreeing that they were not available, while 105 (31.91%) agreed that they were available. The results also showed that 232 (70.52%) of the respondents agreed that workbooks were not adequately available, while 97 (29.48%) agreed that they were adequately available. Internet facilities were deemed not adequately available, as 202 (61.40%) of the respondents agreed that they were not adequately available, while 127 (38.60%) agreed that they were adequately available. The last index to measure material resources in the selected universities is the availability of adequate course materials, with 216 (65.65%) of the respondents agreeing that it was adequately available, while 113 (34.35%) disagreed. The results showed that the electronic board was the material resource that was most critically not adequately available, followed by workbooks, presentation projectors, and internet facilities. However, in terms of adequacy, it was only the course material that was adequately available in the selected universities.

The result from Table 1, which was used to answer the research question, may be a consequence of the government's inadequate funding of the university due to the dwindling economic situation. It might also be because the universities examined are government-owned, where bureaucracy is often required before action can be taken. It may also be due to the centralization of university activities through the adoption of the Integrated Personnel Payroll and Information System (IPPIS) payment platform in universities. This platform made it difficult for the university administration to procure material resources without unnecessary bottlenecks. The result aligns with the findings of Fashiku et al. (2019), who reported that materials required for instruction in educational institutions in Nigeria's north-central geopolitical zone are unavailable. This finding is also in line with Enaohowo's (2018) conclusion that material resources are scarce in most public universities in Nigeria. In addition, the finding is in line with that of Ann (2019), who found that the materials resources needed to teach Business Studies at secondary school level are unavailable.

The results from Table 2, which were used to test the first hypothesis, may be due to the roles played by human resources in the university. Courses in the university are specializations that require expertise. The availability will mean quality delivery of instruction. The result aligns with the findings of Paymaster and Lyndon (2014), who found that the unavailability of lecturers hinders the smooth operation of the sampled universities. Additionally, the outcome aligns with the findings of Majoni et al. (2018), who noted that the unavailability of lecturers to teach contributes to the low quality of graduates from Nigerian universities.

The result from Table 3, which was used to test the second hypothesis, may be because it is only those in the class who can make an impact. The deployment of human resources is crucial in any educational institution. The study supported the findings of concluded that no university can provide quality instruction without adequate deployment of lecturers across disciplines and departments.

Conclusions

The study demonstrated that for universities in South-West Nigeria to provide quality education and for their graduates to be among the world's best, it is necessary to have sufficient human and material resources.

The hypotheses tested showed a statistically significant influence of the availability and utilization of human resources on the quality of education in universities in South-West Nigeria. The first hypothesis showed a significant influence of human resource availability on instructional quality in South-West Nigeria. In addition, the second hypothesis also revealed a significant influence of human resource deployment on instructional quality in South-West Nigeria.

The study revealed a significant shortage of both material and human resources in Nigerian educational institutions.

The study revealed that the electronic whiteboard was the material resource that was most critically unavailable in sufficient quantities, followed by workbooks, presentation projectors, and internet facilities.

In terms of sufficiency, only teaching materials were sufficiently available in the selected universities.

The university administration should implement policies to discourage lecturers from skipping classes and provide incentives to motivate them to stay in their jobs and be satisfied.

On its part, the government should increase the salaries of lecturers in line with international best practices to avoid high turnover rates in Nigerian universities. Incentives such as a medical insurance scheme for lecturers and their biological dependents, comprehensive insurance for lecturers, and leave for lecturers should also be included.

This work, therefore, challenges university administrations to prioritize the availability of human and material resources and ensure their proper utilization.

Suggestions for future research

Further study on the availability, deployment, and quality of human and material resources could be conducted in private universities within the study area. It can also be replicated in other geopolitical zones in Nigeria. This study primarily focused on federal government universities in the study area. Hence, a similar study could be conducted in state government-owned universities within the study area and in other parts of the country. There could also be follow-up research on comparative studies across different geopolitical zones in Nigeria to establish any regional variations in the quality of instruction in Nigerian universities. There could also be a comparative study on the availability, deployment, and quality of instruction in public and private universities within the study area and across the entire six geo-political zones in the country, focusing on human and material resources. The same study could be conducted within the first, second, third, fourth, and fifth generation universities, either jointly or individually. The study can equally be replicated in the National Open University of Nigeria, being the only public open university in the country with mega status.

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Conflict of Interest

None.

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