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AVAILABILITY, ACQUISITION AND UTILIZATION OF INSTRUCTIONAL MATERIALS FOR TEACHING GEOGRAPHY IN SECONDARY SCHOOLS IN JOS NORTH LOCAL GOVERNMENT AREA, PLATEAU STATE, NIGERIA

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ABSTRACT
The aim of this study was to find out the availability, acquisition and utilization of instructional materials for Teaching Geography in Secondary Schools in Jos North Local Government Area of Plateau State, Nigeria. Simple Random Sampling was used to select three (3) Secondary Schools within the study area and 90 SSII geography students and 10 geography teachers, totalling 100 were sampled out of the estimated population of 2000 SSII geography students based on enrolment in the study area. Ninety (90) students with thirty (30) students from each school and three (3) teachers each from two of the Secondary Schools and four (4) teachers from the third school totalling sample size of 100. The instrument used for data collection was the questionnaire. Mean score, Standard deviation and Chi-square were adopted as the statistical techniques for data analysis. The findings showed that, there is inadequacy of instructional materials in secondary schools for teaching geography. The hypotheses was tested at 0.05 level of significance using Chi-square and the result indicates that teacher qualification, years of experience and training on instructional materials use significantly influence the utilization of geography instructional materials (X^2calculated,119.60>X^2critical, 9.4888).

Key words: Availability, Acquisition, Utilization, Instructional Materials, Improvisation, Geography, Education, Secondary Schools.

Introduction

Geography is an old discipline on the basis of human knowledge about his environment, the world and his relationship with the environment (Dhakal K.R, 2017). Geography provides opportunities to develop key knowledge, skills and values that enable students to become responsible citizens. The importance of Geography education cannot be overemphasized. The importance of using instructional materials in teaching-leaning Geography include; making the subject more real, explain difficult concepts, making the learner experience what is being learnt, helping to ignite the imagination of the learners, preventing misconceptions, making learning interesting amongst others. Instructional materials greatly influence education quality and standards and they affect the teaching and learning process (Okobia E.O, 2011).

Instructional materials can be defined as items that are designed to serve as a major tool for assisting in the instruction of a subject or course (Lanie L. R et al, 2025). These items may be available in bound, unbounded, kit or package form and may consist of hard backed or soft backed books, consumables, slides, recordings, learning laboratory, films and film slides, manipulative etc. Abubakar M. B. (2020) stated that instructional materials are educational resources used to improve students' knowledge, abilities, and skills to monitor their assimilation of information and to contribute to their overall development and upbringing.

From the above concepts, it can be reiterated that the use of instructional materials is inevitable for any meaningful teaching-learning process. Abdullahi G. J. (2024), assert that "geography is a skill subject'' and thus, the need for meaningful variety of instructional material is appropriate. Modern researches identified five (5) key behaviours for effective teaching, namely; clarity, variety, task orientation, engagement and moderate to high success rate.

Since geography has been identified as a "skill" subject there is need for teachers to use instructional materials in order to make the students come in contact with what they have been taught theoretically and sometimes go out to the field to see certain scenario related to the topic in question, because, the field is the geographer's "laboratory". Therefore, it is the duty of teachers to make possible ways to use instructional materials either standard or improvised during teaching-learning because it arouses the interest of the students. Maria D.M. (2024) expressed that, learning is an activity to take place in a contact and not in a vacuum. She reiterated that students with teaching aids do not have blank mind, but a consolidated and developed literacy of knowledge.

Today, advances in technology have made it possible to produce materials and devices that could be used to minimize the teacher's talking at the same time, making the message clearer, more interesting and easier for the learners to assimilate." It is against this background that this study assesses the availability, acquisition and utilization of instructional materials for teaching Geography in Secondary Schools in Jos North LGA, Plateau State.

Statement of the Problem

Instructional materials are essentials tools in the teaching and learning process, particularly in Geography, where concepts such as landforms, climate, population distribution, map reading and environmental processes require practical demonstration and visualization. The effective teaching of Geography depends largely on the availability and utilization of instructional materials such as charts, atlases, models, photographs, meteorological instruments and audio-visual aids.

It is against this background that the researchers identified the following problems;

a. The lack of ICT-based classrooms, learning management systems, and technological infrastructure further limits teachers' ability to integrate modern instructional resources (Angala & Rafi, 2025).

b. The problem of instructional material is not just its availability, but its use or application by the teacher. Some schools have the instructional materials but do not make use of it or being applied by the teacher (edreports, 2022).

c. Another problem is that of acquisition. Due to financial problems, some schools are not able to acquire or provide the needed instructional materials for teaching and learning process to take place. Geography teachers emphasize the need for increased financial resources to support digital media and updated textbooks that reflect contemporary global challenges like climate change and globalization (Olayemi, A. A & Amosun, P.A, 2021).

It is against this background that this study examines the availability, acquisition, and utilization of instructional materials for teaching geography in Secondary Schools in Jos North Local Government Area with a view to identifying appropriate measures for improvement.

Purpose of the Study

The aim of this study was to find out the availability, acquisition and utilization of instructional materials for teaching geography. Specifically, this research seeks to;

(a) Ascertain the extent of availability of instructional materials for teaching geography,

(b) Examine the sources of acquisition of instructional materials

(c) Determine the level of utilization of available instructional materials by teachers for teaching geography.

Research Questions

The following research questions were answered at the course of this study;

(a) What is the extent of availability of instructional materials for teaching geography in secondary schools?

(b) What are the major sources of acquisition of geography instructional material?

(c) What is the level of utilization of available instructional materials by geography teachers during teaching-learning process in secondary schools?

Hypotheses

Based on the statement of the problem, below are the null and alternative hypotheses;

Ho: Teacher qualification, years of experience, and training on instructional materials use do not significantly influence the utilization of geography instructional materials

Ha: Teacher qualification, years of experience, and training on instructional materials use significantly influence the utilization of geography instructional materials

Methodology

The researchers employed a survey research design, where data was collected by administering questionnaires to the respondents. The population of the study covers all the 2000 SSII students and teachers in secondary schools in Jos North LGA of Plateau state.

To obtain authentic result and to avoid prejudice, the researcher was not able to involve the entire population of geography students and teachers in each of the schools in the study area. The sample size is therefore, made of ninety (90) students with thirty (30) students from each school and ten (10) teachers made up of three (3) teachers each from two of the Secondary Schools and four (4) teachers from the third school totalling sample size of 100. The researcher used simple random sampling technique to choose the study sample from the targeted population. In simple random sampling, a number of procedures are usually considered. Therefore, the researchers adopted the following procedures in selecting three schools from the study area;

i. The names of each selected school were written on a separate piece of papers.

ii. The separate pieces of papers were folded separately from one another and put into a bag.

iii. The folded pieces of papers in the bag were thoroughly shaken for proper mixing.

iv. At the end, one of the respondents dipped his hand into the bag and picked a piece of the folded paper, opened it and the first school was identified.

This procedure was repeated throughout until all the schools were selected. The samples mentioned were drawn from three Secondary Schools in Jos North L.G.A. these include;

i. Government Secondary School, Gwong.
ii. Divine Grace School Jos.
iii. Government Secondary School Chwel-nyap.

The students were composed of both male and female. The major method used in the selection of the research sample was the simple random sampling technique which guarantees every member of the population equal opportunity to be selected.

The research instrument that the researchers used in collecting data includes the use of questionnaires which was the major method employed for the study. Other methods include; oral discussion, interview, and personal observation. The questionnaires are meant for geography teachers and students. It was divided into two types; type one, is for students which are divided into two sections that is, section A for personal information of the respondents and section B for research questions. Type two, is for the teachers which are also divided into two sections; section A for personal information of the respondents and section B for research questions.

The nature of the questionnaire is a list of statement with five options attached to each one of them showing the extent to which a respondent agreed or disagreed with a statement. "SA" Strongly Agreed, "A" Agree, "U" Undecided, "D" Disagreed, "SD" Strongly Disagreed. The respondents were to make their choice or response by ticking just one out of the five options. At the end, open-ended questions were posed by the researcher for the respondent's opinions. This method is adopted because it provides more degree of agreement or disagreement.

The researchers collected data through administering closed-ended and open-ended questionnaires to geography teachers and geography students in the selected secondary schools. The researcher made use of ninety (90) questionnaires which were administered to geography students from the population and three (3) questionnaires to the geography teachers from the first two schools while the last school was given four (4) questionnaires respectively making a total sample size of 100. To this end, the researchers administered the questionnaires directly to the respondents by visiting the selected schools for the study.

The technique that was used to analyze the data was based on the responses of the teachers and students. Mean score and Standard deviation was used to analyze the rate of responses to each opinion in the questionnaire and Chi-square was used to test the hypotheses.

Results

The results of the data analysis and interpretation were presented according to the research questions for the study. They were analyzed as follows:

Research Question 1: What is the extent of availability of instructional materials for teaching geography in secondary schools?

Table 1:

Response Category	**Weight (X)**	**Frequency (f)**
Strongly Agree (SA) Readily Available	5	5
Agree (A) available	4	15
Undecided (U) Available	3	0
Disagree (D) Not Available	2	50
Strongly Disagree (SD) Don't Know	1	35

Step 1: Calculate Mean Score

X	f	fX
5	5	25
4	15	60
3	0	0
2	50	100
1	30	30
Total	**100**	**215**

$$\bar{X} = \frac{\sum FX}{\sum F}$$

$$\bar{X} = \frac{215}{100}$$

$$\bar{X} = 2.15$$

Mean Score = 2.15

Standard Deviation

Using $\bar{X} = 2.15$

X	**f**	**X−2.15**	**(X−2.15)²**	**F(X−2.15)²**
5	5	2.85	8.1225	40.63
4	15	1.85	3.4225	51.34
3	0	0.85	0.7225	0
2	50	-0.15	0.0225	1.13
1	35	-1.15	1.3225	46.29
Total	**100**			**139.39**

$$SD = \sqrt{\frac{139.39}{100}}$$

$$SD = \sqrt{1.3939}$$

SD = 1.18
Standard deviation = 1.18
Summary

Variable	**Mean Score**	**Standard Deviation**
Availability of instructional Materials	2.15	1.18

The mean score of 2.15 is less than the criterion mean of 3.00, indicating that respondents generally disagreed that instructional materials are readily available. The standard deviation of 1.18 shows that respondents' opinions were relatively consistent.

Research Question 2: What Are The Major Sources of Acquisition of Geography Instructional Materials?

Table 2:

Response Category	**Weight (X)**	**Frequency (f)**
Standard (Imported) Instructional Materials	5	60
Improvised Instructional Materials	4	26
Indigenous Instructional Materials	3	10
Rented Instructional Materials	2	4
Don't Know	**1**	**0**

Step 1: Calculate Mean Score

X	f	fX
5	60	300
4	26	104
3	10	30
2	4	8
1	0	0
Total	**100**	**442**

Mean Score = 4.42

Step 2: Calculate Standard Deviation

X	**f**	**X−4.42**	**$(X-4.42)^2$**	**$F(X-4.42)^2$**
5	60	0.58	0.3364	20.184
4	26	-0.42	0.1764	4.5864
3	10	-1.42	2.0164	20.164
2	4	-2.42	5.8564	23.4256
1	0	-3.42	11.6964	0
Total	**100**			**68.36**

Summary

Mean Score	**Standard Deviation**
4.42	0.83

The mean score of 4.42 indicates that respondents predominantly reported the use of standard (imported) instructional materials. The standard deviation of 0.83 shows relatively low variability in responses, suggesting that respondents' opinions were fairly consistent

Research Question 3: What is the level of utilization of available Instructional Materials by Geography Teachers during teaching-learning process in Secondary Schools?

Table 3:

Response Category	Weight (X)	Frequency (F)
Strongly Agree (SA) Regularly used	5	45
Agree (A) Rarely used	4	35
Undecided (U) Under utilized	3	10
Disagree (D) Not utilized	2	10
Strongly Disagree (SD) Don't Know	1	0

Step 1: Calculate Mean Score

$$X = \frac{\sum FX}{\sum F}$$

X	F	FX
5	45	225
4	35	140
3	10	30
2	10	20
1	0	0
Total	**100**	**415**

Mean Score = 4.15

Step 2: Calculate Standard Deviation

X	F	X−4.15	$(X-4.15)^2$	$F(X-4.15)^2$
5	45	0.85	0.7225	32.5125
4	35	-0.15	0.0225	0.7875
3	10	-1.15	1.3225	13.2250
2	10	-2.15	4.6225	46.2250
1	0	-3.15	9.9225	0
Total	**100**			**92.75**

Standard Deviation = 0.96

Summary

Variable	Mean Score	Standard Deviation	Decision
Utilization of instructional materials	4.15	0.96	High utilization

Since the mean score (4.15) is above the criterion mean of 3.00, respondents generally agree that the instructional materials are regularly utilized. The standard deviation (0.96) indicates relatively low variation in responses. This result indicates that, geography teachers make use of the available instructional materials in secondary schools.

Table 4: **Testing of Hypotheses**

Ho: Teacher qualification, years of experience, and training on instructional materials use do not significantly influence the utilization of geography instructional materials

Ha: Teacher qualification, years of experience, and training on instructional materials use significantly influence the utilization of geography instructional materials

Using research question three (3), the null hypotheses was tested.

Table 4: Shows the summary of result obtained (Teacher qualification, years of experience, and training on instructional materials use do not significantly influence the utilization of geography instructional materials).

X^2calculated	X^2critical	df	α	Decision
119.60	9.488	3	0.05	Reject Ho

As shown by table 4, X^2calculated>X^2critical (that is, calculated Chi-square is greater than the critical or tabulated Chi-square value) and thus, the null hypothesis is rejected and the alternative hypothesis is upheld as the final decision because Teacher qualification, years of experience, and training on instructional materials use significantly influence the utilization of geography instructional materials statistically, it is written as X^2calculated (119.60) > X^2critical (9.488).

Discussion of Findings.

From the overall results in table 1, it is obvious that instructional materials are inadequate in secondary schools for teaching geography, since the mean score of 2.09 is less than the criterion mean of 3.00, indicating that respondents strongly disagreed that there are available instructional materials in secondary schools. This coincides with the study of Chinedu and Olugbenga (2026) that generally, there is inadequacy of instructional materials in Nigerian schools. They added that it is not just the availability of the instructional materials but the quality brings about effectiveness in teaching.

Table 2, indicates a mean score of 4.42 which connotes that teachers use standard (imported) instructional materials rather than improvisation of instructional materials or by using indigenous instructional materials. The Standard deviation of 0.83 shows relatively low variability in responses, suggesting that respondents' opinion were fairly consistent. This agrees with Akilu and Olatunbosun (2022) who stated that lack of funding, training, standardization and convenience, curriculum and exam alignment amongst others are the reasons for teachers relying on standardized or imported instructional materials during teaching-learning process. This means that, most teachers do not imbibe the habit of improvisation by using local materials found within the environment to produce instructional materials not to talk of involving the students in producing the material to enhance their creativity and create in them (students) ability to solve problems.

Table 3, clearly shows the mean score of 4.15 above the criterion mean of 3.00, respondents agreed that teachers make use of the available instructional materials for teaching geography in secondary schools. The standard deviation (0.96) indicates relatively low variation in responses. Instructional materials serve as a motivating factor in teaching-learning process which in turn makes learning concrete and permanent as asserted by Abdulrraziq and Geedallah (2025). Thus, its use cannot be underestimated in any meaningful teaching-learning process. Its availability, acquisition and utilization are crucial issues to be considered in using them.

Conclusion

One may conclude from the findings that, instructional materials play a vital role in teaching-learning process as far as geography is concerned. It enables students and teachers to experience learning concretely rather than being abstract which promote critical thinking,

easy understanding and ability to work individually and in a group. From the findings of this study, it is concluded that there is inadequacy of geography instructional materials in secondary schools, geography teachers rely on standard instructional materials during teaching-learning process and that geography teachers utilize the available instructional materials in their disposal. This study is limited only to some Selected Senior Secondary Schools in Jos North Local Government Area of Plateau State which includes: SS II students of Government Secondary School Gwong, Divine Grace School Jos, and Government Secondary School Chwel-nyap.

Recommendations

Based on the findings of this research, the following recommendations were made;

(1) Instructional materials should be made available in secondary schools to meet up with the global trends. This can only be possible through the joint effort of the Ministry of Education (both Federal and State), Parent-Teachers Association, teachers etc that will provide teaching aids such as projectors, television, charts, maps, globes etc for effective teaching-learning process.

(2) Geography teachers must imbibe the spirit of improvisation to help cope with the issue of inadequacy of instructional materials.

(3) There is need for seminars, workshops, teacher training course etc. for geography teachers to make use of modern technology to make geography an interesting subject.

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