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Accessibility of instructional materials for effective teaching: outlook from high schools in Eleme, River State, Nigeria

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Abstract

The study focuses on the accessibility of instructional material for effective teaching in secondary (high) schools in Eleme, Rivers State, Nigeria. The population of the study consisted of 450 teachers from eight secondary (high) schools using a structured research questionnaire. The questionnaires were administered to 78 teachers from eight secondary (high) schools. Percentages (%) and frequency counts were used to assess the data that had been obtained. The numerical values of the estimated % of the response options' values served as the basis for the decision. Any item with a % score of 50 or higher was considered to be accessible (available), whereas % values lower than 50 were considered to be unavailable. The analysis's findings indicated that these secondary (high) schools had a poor supply of instructional materials for efficient instruction. The little teaching resources that were provided were insufficient, and the teachers either could hardly use them or did not know how to use them, so they were rarely used. The research also revealed that teaching without instructional resources is ineffective; thus, for efficient teaching and learning, teachers should make the most of the instructional materials that are already accessible. The study suggests that the government set aside enough money in the budget to increase access to teaching resources across the board for all public secondary (high) schools. This study recommends more investigation into how teachers utilize instructional

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resources for efficient teaching and learning. Hence, it is believed that this findings from this study will attempt to bring solutions to the inaccessibility and underuse of instructional resources in teaching and studying in high schools.

Keywords: Academic performance; Learning; Student; School; Teaching

1. Introduction

It is indisputable to evaluate teaching resources to promote teaching and studying in high (secondary) schools (Onche, 2014). Middle school teaching must be carried out correctly. In our education system, the resources that teachers use to teach courses in high school and take them home are indisputable. This poses a fundamental challenge to actual classroom interaction and the successful transfer of knowledge from teachers to students. These resources can help teachers make students understand their courses. They are also used to convey information, thoughts, and notes to students (Çebi & Güyer, 2020; Nwankwo & Ukhurebor, 2020). According to Fernández-Gutiérrez (Fernández-Gutiérrez, Gimenez, & Calero, 2020), classroom resources include visual and audio-visual resources, such as pictures, maps, charts, tape recorders, etc., radio, video, television, computers, etc. They claimed that visual aids make life alive and help learners learn more and easier, especially when studying, which has a positive effect on their consistency. The most important aspect of good teaching is to find the best method and apply it. To be able to teach, you need to know how students learn. The correct understanding of high school conceptual thinking depends to a large extent on availableness, type, and purpose. According to the teaching experience of Ayeduso (2000), make students actively participate in teaching activities Participating in concrete examples takes longer than abstract examples. Teaching and studying cannot be achieved without using textbooks. The accessibility and use of instructional resources in teaching have made both teaching and studying attractive. The non-accessibility of instructional resources and the lack of qualified staff to handle the negligible few effectively affect the standard of education and the intended achievement. It has shown glaringly that even where there is qualified staff, the accomplishments still fall below average due to inadequate facilities and instructional resources (Nneji, et al., 2022). Abayomi (2009), noted that effective teaching and studying habits do not just happen, they are acquired. It undergoes some metal processing before it is established.

According to Abayomi (2009), research has revealed that wherever a teacher adopts affective teaching techniques, skills, and strategies in the usage of instructional resources, the understanding of students' studying skills and their studying processing strategies, as well as their general accomplishment in tests and examinations, improves substantially. Therefore, for high degrees of success to be achieved, there must be a wide range of accessible and effective instructional resources used by the tutors. Provision and use of instructional resources require hard work, a sense of commitment, dedication, perseverance, and above all, effective study behaviour (Abayomi, 2009).

Adegbija (2007), reported that Nigerian high schools have insufficient teaching resources. In addition, they stated that the goods in inventory are usually in poor condition and there is a need for some improvisation. For them, the accessibility and use of teaching resources can contribute to effective studying and student accomplishment.

Teaching behaviour is basically related to the transfer of ideas, skills, and attitudes between teachers and students (Nneji, et al., 2022). For example, in Nigeria, experience has shown that mere words to convey ideas are extremely contagious and cannot effectively achieve the expected study outcomes (Nneji, et al., 2022). When publishing the results of high school examinations, there are always people complaining about poor accomplishment in basic subjects. This may be because topics in different subjects pose serious problems for students. The subject cannot be taught effectively without using appropriate classroom resources to make studying practical. Adegbija (2007), emphasized the influence

of teaching resources on teaching. In doing so, we learn and remember 10% (one-tenth) of what we hear, 40% (close to half) of what we discuss with others, and how we directly live or do the other 80% of the work. This led to the focus of this study being on researching and evaluating resources that can be used for effective teaching in high schools. Hence, this research work is aimed at investigating the accessibility of instructional resources for effective teaching and studying in high schools in Eleme, Rivers State, Nigeria. The objectives of this study are to:

- Determine the accessible resources for teaching and studying in high schools
- Find out the level to which high school students studying are influenced by the use of instructional resources.
- To evaluate the state of accessible resources for effective teaching in high schools.
- Ascertain the differences in the academic accomplishment of high (secondary) school students due to the accessibility and use of instructional resources.

In order to achieve the objectives of this study, the following research questions were raised to guide the investigation:

- Research Question 1: What resources are accessible for teaching in high schools?
- Research Question 2: How do instructional resources influence effective teaching and studying in high schools?
- Research Question 3: What is the state or condition of the accessible resources for effective teaching and studying in high schools?
- Research Question 4: Will there be any difference in the accomplishment of high school students due to the accessibility and effective use of instructional resources in teaching and studying?

The content of teaching resources provided and used by the education department cannot be exaggerated (Azih, 2008; Liu, Kirschner, & Karpinski, 2017). Without the provision and use of teaching resources, it is impossible to fully and effectively teach various subjects in middle schools (Ayeduso, 2000; Çebi & Güyer, 2020). The accessibility and use of these resources promote closer and more effective communication between teachers and students (Abdelraheem & Al-Rabani, 2005; Fernández-Gutiérrez, Gimenez, & Calero, 2020). These teaching resources can be printed resources, such as textbooks or graphics, as well as non-printed resources, such as tapes, videotapes, televisions, etc. (Bongotons & Onyenwe, 2010). It has been reported in several sources that classroom teaching resources are an important tool for teaching and studying school subjects to improve the proficiency of teachers as well as student accomplishment (Ayeduso, 2000; Azih, 2008). They make studying more interesting, practical, realistic, and interesting. They also enable teachers and students to energetically and efficiently participate in classroom activities. They provide space for the attainment of skills and knowledge, the development and advancement of self-assurance, self-confidence, as well as self-realization (Azih, 2008).

Findings from the Piagets theory of studying, socio-cultural theory of teaching/learning and development as well as instructional resources theories on the theoretical framework. Also, from the empirical framework perspective, there several works that were applicable in this study since they covered the accessibility and use of instructional resources for effective teaching and studying (Ayeduso, 2000; Azih, 2008; García-Martín & Cantón-Mayo, 2019).

The accessibility and usability of the teaching resources enable students to touch, smell, and try tests during the teaching process. Therefore, for the sake of clarity, the knowledge to be delivered to learners at different teaching levels should be carefully planned and appropriately linked to relevant teaching resources. Therefore, the importance of this research is to enable students to effectively internalize and remember, what they have learned, thereby improving their accomplishment in the subject. According to Onche (2014), this is because studying is the process of acquiring knowledge, skills, habits, facts, ideas, and principles. store and use; the only way is to use the tutorial. Students will improve the efficiency and productivity of teachers' teaching. A teacher who uses appropriate classroom resources to supplement the teaching content will help improve students' innovative ability and creativity and enable them to spontaneously show enthusiasm and energy. Parents will benefit from this research because it can serve as a basis for teachers to explain why studying is also important for the education system and society as a whole. This is because teachers use textbooks to strengthen studying, and students can indeed learn; indeed, the acquired knowledge will have a positive impact on society.

The result of this study has evident implications for effective teaching and studying in high schools. It is predictable that there is a need to make instructional resources accessible for effective teaching and studying in high schools so as to enhance effective understanding of the subject being taught. When teachers integrate theoretical information with practical experience for concepts that are abstract in nature, the acquisition of knowledge for effective mastering can take place. Hence, it is believed that this findings from this study will attempt to bring solutions to the inaccessibility and underuse of instructional resources in teaching and studying in high schools. Also, this study will enable teachers to provide and understand the best way to handle instructional resources during lesson delivery to achieve the teaching objectives.

2. Method

2.1. Research Design

The research design was a descriptive survey. This was for the purpose of finding out the availableness of instructional resources for effective teaching in high schools in Eleme, Rivers State, Nigeria. By asking questions, this design offers a practical approach to learning about people's beliefs, attitudes, accomplishments, and experiences. This was chosen for this study because it requires systematic data collection and analysis to analyse a group of people or events (Castellacci & Tveito, 2018).

2.2. Population, Sample Sampling Techniques of the Study

The population of this study was all the high schools' teachers in Eleme, Rivers State, Nigeria There are 450 high school teachers in eight junior high schools in Eleme, Rivers State, Nigeria. A simple random sampling technique was used to select seventy-eight junior high school teachers as the sample size for this study. A progressive quota sampling method was used to obtain the sample size for the study; this method allows the researcher to study a reasonable portion of the population. As a result, 15% of the population was required to obtain the sample size (Oguguo, et al., 2020).

2.3. Research Instruments and Validity

The instruments for data collection for this study were a structured questionnaire administered to the high school teachers. The questionnaire was titled the Instructional Resources Availableness Questionnaire. The questionnaire contains a total of forty-six items. It was divided into two parts: parts I and II. Part A consists of general information about the respondents, such as gender, school type, etc. Part B consists of Sections A, B, C, and D. Section A consists of fifteen items on the resources accessible for teaching. Section B consists of four items on how constructional resources influenced the teaching

of school subjects in high school. Section C consists of seventeen items on the state or condition of the accessible resources for teaching. Section D consists of ten items on differences in the accomplishment of high school students due to the accessibility and effective use of instructional resources for teaching: Section A's fifteen items were structured as accessible or not accessible, whereas Sections B, C, and D's thirty-one items were structured on a four-point rating scale of strongly agreed (SD) = 4, agreed (A) = 3, disagreed (D) = 2, and strongly disagreed (SD) = 1.

In qualitative research, validity and reliability (dependability) promote transparency and reduce the potential for researcher bias (Singh, 2014; Oguguo, et al., 2020). A thorough evaluation of reliability and validity for all secondary data includes a review of the data collection techniques (Mohajan, 2017). These offer a useful method for interpreting results from psychometric instruments used in clinical treatment, research, teaching, and administration (e.g., surveys, educational assessments, and observer ratings). These are crucial ideas for contemporary research since they improve the precision of a research work's assessment and evaluation (Tavakol & Dennick, 2011). It will be challenging to explain the consequences of measurement errors on the theoretical relationships that are being measured without evaluating the reliability and validity of the research. It will be somehow difficult to improve the validity and reliability of the data collected by employing a variety of strategies (Mohajan, 2017; Abdalla & Qashou, 2020). Validity is the extent to which an instrument measures what it is supposed to measure and performs validly when there is confidence that it measures what it is intended to measure in a given situation. The validity of the instrument was determined by experts' opinions.

2.4. Method of Data Collection and Analysis

The questionnaire was administered to the teachers through direct delivery and collection by the researcher. Seventy-eight copies were distributed, and seventy-eight were returned and used for the analysis. For the sake of answering the research questions, percentages (%) and frequency counts were used to examine the study's data collection. The number of items in the questionnaire was compared to the respondents' responses, or they were categorized. The numerical values of the estimated % of the response options' values served as the basis for the decision. Any item with a % score of fifty or higher was considered to be accessible, whereas % values lower than fifty were considered to be unavailable.

3. Analysis and Discussion of Data

Educational qualification

2.

The research work was conducted on the accessibility of instructional resources for effective teaching in high schools. This section focused on the analysis and discussion of data.

The demographic data of the respondents (teachers) are presented in Table 1.

S/N	Items	Response	Frequency	%
1.	Gender	Male	33	42.3
		Female	45	57.7

Total

M.Ed.

B.Ed./B.Sc. NCE

Grades II

Total

Table 1. The general background information of the respondents (teachers).

78

12

60

5

0

78

100

15.4

78

6.4

100

0

3.	Years of experience	Less than 5 years	15	19.2	
		6-10 years	10	12.8	
		11-15 years	20	25.6	
		15 years and above	33	42.3	
		Total	78	100	
4.	School type	Junior High	63	80.8	
		Senior High	15	19.2	
		Total	78	100	

In Table 2, the presentation of what instructional resources and materials are accessible for teaching and studying in high schools.

Table 2. The instructional resources accessible for teaching and studying in high schools.

S/N	Items	Α	A (%)	NA	NA (%)
1.	Textbooks	65	83.3	13	16.7
2.	Typewriters	55	70.5	23	29.5
3.	Scanner	66	84.6	12	15.4
4.	Demonstration stands	62	79.5	16	20.5
5.	Television	9	11.5	69	88.5
6.	Radio	26	33.3	52	66.7
7.	Computers	38	48.7	40	51.3
8.	Photocopying machine	48	61.5	30	38.5
9.	Printer	4	5.1	74	94.9
10.	Drawing instruments and resources	70	89.7	8	10.3
11.	First aid box and resources	64	82.1	14	17.9
12.	Wall clock	70	89.7	8	10.3
13.	Science laboratory	9	11.5	69	88.5
14	Laboratory equipment and reagents	4	5.1	74	94.9
15.	Recorder	65	83.3	13	16.7

Table 2 sought to find out the resources accessible for teaching and studying in high schools. It was revealed that the schools indicated that most of the resources are not accessible, which include computers (51.3%), laboratory equipment and reagents (94.9%), photocopying machines (38.5%), printers (94.9%), television (88.5%), laboratory science (88.5%), and also indicated some of the resources that are accessible, which include a wall clock (70.0%), drawing instruments (89.7%), and a recorder (83.3%).

Table 3 is the presentation of which educational resources will influence effective teaching and studying in high schools.

Table 3. The instructional resources influencing effective teaching and studying in high schools.

S/N	Items	SA	Α	D	SD
1.	Students are more likely to comprehend the information being taught when teachers make excellent use of readily available educational materials for business education.	37 (47.4%)	34 (43.6%)	4 (5.1%)	3 (3.8%)
2.	Facts become more tangible to students when educational tools are used effectively when teaching business education subjects.	22 (28.2%)	42 (53.8%)	8 (10.3%)	6 (7.7%)

3.	The availableness and adequate use of				
	instructional resources for teaching supplement description and help to explain words and	22 (28.2%)	42 (53.8%)	6 (7.7%)	8 (10.3%)
	processes.				
4.	Effective use of business education resources makes class delivery easier.	32 (41.0%)	37 (47.4%)	6 (7.7%)	3 (3.8%)

Table 3 revealed the % of the instructional resources that will influence effective teaching and studying in high schools. Item 1 revealed that the notion that teachers' effective use of accessible educational resources for teaching aids students to easily understand the facts being taught was supported by 37 (47.4%) strongly agreeing, 34 (43.6%) agreeing, 4 (5.1%) disagreeing, and 3 (3.8%) strongly disagreeing. Item 2, which stated that adequate use of the accessible educational resources in teaching makes facts more real to students, had 22 (28.2%) respondents strongly agree, 42 (53.8%) agree, 8 (10.3%) disagree, and 6 (7.7%) strongly disagree. Item 3 indicated that out of the respondents who responded to the notion that the accessibility and adequate use of instructional resources for teaching supplement description and help to explain words and processes, 22 (28.2%) strongly agreed, 42 (53.8%) agreed, 6 (7.7%) disagreed, and 8 (10.3%) strongly disagreed. Item 4 revealed that the item that stated that effective use of instructional resources makes class delivery easier was one with which 32 (41.0%) respondents strongly agreed, 37 (47.4%) agreed, 6 (7.7%) disagreed, and 3 (3.8%) strongly disagreed. Table 4 is the presentation of what is the state or condition of the accessible instructional resources for teaching and studying in high school.

Table 4. The educational resources influencing the teaching and studying in high schools

S/N	Items	SA	Α	D	SD	Mean (X)
1.	The textbooks accessible for teaching in my school are current.	30 (38.5%)	30 (38.5%)	11 (14.1%)	7 (9.0%)	3.6
2. 3.	The textbooks accessible for teaching are of good numbers The typewriters accessible for teaching in my school are in good	22 (28.2%)	33 (42.3%)	11 (19.2%)	7 (10.3%)	2.8 2.3
4.	condition and functioning. The Demonstration stand for teaching in my school is in good	12 (15.4%)	18 (23.1%)	27 (34.6%)	21 (26.9%)	3.1
_	condition.	27 (34.6%)	37 (47.4%)	7 (9.0%)	7 (9.0%)	
5.	The Televisions in my school are in good condition and functioning.	20 (25.6%)	40 (51.3%)	10 (12.8%)	8 (10.3%)	2.9
6.	The Radio for teaching the students in my school is in good condition	0 (0.0%)	0 (0.0%)	48 (61.5%)	30 (38.5%)	1.6
7.	The computers in my school, for					2.8
8.	teaching are functioning The Photocopying Machines in my	23 (29.5%)	24 (30.8%)	20 (25.6%)	11 (14.1%)	2.7
	school, for teaching are functioning	18 (23.1%)	30 (38.5%)	20 (25.6%)	10 (12.8%)	
9.	Printers in my school, for teaching are functioning	15 (19.2%)	31 (39.7%)	18 (23.1%)	14 (17.9%)	2.6
10.	Drawing instruments and resources are in good condition		, ,	30 (38.4%)	45 (57.7%)	2.5
11.	First aid box and resources are in	0 (0.0%)	30 (38.4%)			3.1
	good condition	27 (34.6%)	39 (50.0%)	8 (10.3%)	4 (5.1%)	

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12.	Wall clock in my school, for teaching					1.9
	is functioning	4 (5.1%)	9 (11.5%)	43 (55.1%)	22 (28.2%)	
13	Science laboratory in my school for					2.8
	teaching is in good condition.	23 (25.8%)	31 (34.8%)	13 (14.6%)	11 (24.7%)	
14.	Laboratory equipment are in good					3.0
	condition	31 (39.7%)	25 (32.1%)	13 (16.7%)	9 (11.5%)	
15.	The Scanner in my school is					1.7
	functioning	2 (2.6%)	5 (6.4%)	41 (52.6%)	30 (38.5%)	
16.	Recorder for teaching is functioning	1 (1.3%)	1 (1.3%)	33 (42.3%)	43 (55.1%)	1.5
17.	The textbooks accessible for teaching					3.1
	in my school are relevant	35 (44.9%)	24 (30.8%)	13 (16.7%)	6 (7.7%)	
	Aggregate X					2.6

Table 4 revealed the % of the state or condition of the available or accessible resources for effective teaching and studying in high schools. Item1 revealed that the textbooks accessible for teaching in many schools are current of which 30 (38.5%) strongly agreed, 30 (38.5%) agreed, 11 (14.1%) disagreed and 7 (9.0%) strongly disagreed. Item 2 which stated that textbooks accessible for teaching are of good numbers; of which 22 (28.2%) respondents strongly agreed, 33 (42.3%) agreed, 11 (19.2%) disagreed and 7 (10.3%) indicated strongly disagreed. Item 3 indicated that out of the respondents who responded to the notion that the typewriters accessible for teaching in many schools are in good condition, 12 (15.4%) indicated strongly agreeing, 18 (23.1%) agreed, 27 (34.6%) disagreed, and 21 (26.4%) strongly disagreed. Item 4 revealed that 27 (34.6%) respondents strongly agreed, 37 (47.3%) agreed, 7 (9.0%) disagreed, and 7 (9.0%) strongly disagreed with the item, which stated that the accessible demonstration stands in their schools are in good condition. Item 5 revealed that for the notion that the accessible televisions in their schools are in good condition, 20 (25.6%) respondents indicated strongly agreeing, 40 (51.3%) agreed, 10 (12.3%) disagreed, and 8 (10.3%) strongly disagreed. Item 6 which stated that the Radio use for teaching the students in the school is in good condition, 48(61.5%) respondents indicated disagreed, 30 (38.5%) strongly disagreed to the item. Item 7 indicated that out of the respondents who responded to the notion that the computers in many schools for teaching are functioning, 23 (29.5%) indicated strongly agreeing, 24 (30.8%) agreed, 20 (25.6%) disagreed, and 11 (14.1%) strongly disagreed. Item 8 showed that the notion which state that the photocopying machine for teaching are functioning, 18 (23.1%) respondents indicated strongly agreed, 30 (38.5%) agreed, 20 (25.6%) disagreed and 10 (12.8%) strongly disagreed. Item 9 which stated that printers in school for teaching are functioning, 15 (19.2%) respondents strongly agreed, 31 (39.7%) agreed, 18 (23.1%) disagreed and 14 (17.9%) strongly disagreed. Item 10 indicated that out of the respondents who responded to the notion that drawing instruments and resources are in good condition, 30 (38.4%) indicated agreement, 30 (38.4%) disagreed, and 45 (57.7%) strongly disagreed. Item 11 showed that 27 (34.6%) respondents indicated strongly agreeing with the item, 39 (50.0%) agreed, 10 (11.3%) disagreed, and 4 (5.1%) indicated strongly disagreeing. Item 12 showed that 4 (5.1%) respondents indicated strongly agreed, 9 (11.5%) agreed, 43 (55.1%) disagreed while 22 (28.2%) indicated strongly disagreed to the item. Item 13 revealed that 23 (25.8 respondents indicated strongly agreed, 31 (34.8%) agreed, 13 (14.6%) disagreed while 11 (24.7%) indicated strongly disagreed. Item 14 revealed that 31 (39.7%) respondents indicated strongly agreed, 25 (32.1%) agreed, 13 (16.7%) disagreed while 9 (11.5%) indicated strongly disagreed. Item 15 showed that 2 (2.6%) respondents indicated strongly agreed, 5 (6.4%) agreed, 41 (52.6%) indicated disagreed while 30 (38.5%) indicated strongly disagreed to the item. Item 16 revealed that 1 (3.3% of respondents) indicated strongly agreeing and agreeing, respectively, 33 (42.3%) respondents indicated disagreeing, and 6 (7.7%)

respondents indicated strongly disagreeing to the item. Item 17, which is the last item, revealed that 35 (44.9%) respondents indicated strongly agreeing, 24 (30.8%) respondents agreed, 16 (17.7%) respondents indicated disagreeing, and 6 (7.7%) respondents indicated strongly disagreeing.

Table 5 is the presentation of the determination of the difference in the accomplishment of high school students due to the accessibility and effective use of instructional resources for teaching and studying

Table 5. The difference in the accomplishment of high school students due to the accessibility and effective use of instructional resources for teaching and studying.

S/N	Items	SA	Α	D	SD
	Availableness of instructional resources for				
1.	academic activities will help students to learn faster.	37 (47.4 %)	34 (43.6%)	4 (5.1 %)	3 (3.8%)
2.	Effective use of these teaching aids will improve the accomplishment of students.	22 (28.2 %)	42 (53.8 %)	8 (10.3 %)	6 (7.7 %)
3.	Students pay close attention to teaching with the use of instructional resources. Effective use of teaching resources makes	45 (57.7 %)	30 (38.5 %)	2 (2.6 %)	1 (1.3 %)
4.	illustrations clearer to students, promote retention and memory.	37 (47.4 %)	32 (41.0 %)	6 (7.7 %)	3 (3.8%)
5.	They enrich, visualize, simplify, transmit and accelerate the teaching and studying process.	38 (48.7%)	37 (47.4 %)	1 (1.3 %)	2 (2.6 %)
6.	Their use aids the teachers in getting past any physical challenges that would have prevented a successful presentation of a particular topic.	22 (28.2%)	42 (53.8%)	8 (10.3%)	6 (7.3%)
7.	They help in achieving the stated behavioral objectives when evaluation is carried out at the end of the lesson or program.	40 (51.3%)	30 (38.5%)	5 (6.4 %)	3 (3.8%)
8.	They facilitate studying of abstract concept by helping to concretize ideas and stimulate learners' imagination.	37 (47.4 %)	43 (43.6%)	3 (3.8 %)	4 (5.1%)
9.	They provide the teachers with means of exposing the students to a wide range of studying activities.	22 (28.2%)	42 (53.8%)	8 (10.3%)	6 (7.3%)
10.	They help teachers effectively and meaningfully convey what they want to students so that students can acquire, understand, retain and use their accumulated experience to achieve their goals.	40 (51.3%)	32 (41.0%)	3 (3.8%)	3 (3.8%)

Table 5 reveals the differences in the accomplishment of high school students due to the accessibility and use of instructional resources for teaching and studying. Item 1 suggests that the accessibility of instructional resources for teaching helps students to learn faster. Of which 47.8% strongly agreed, 43.6% agreed, 5.1% disagreed, and 3.8% strongly disagreed. Item 2 suggests that effective use of teaching resources will improve the accomplishments of students. 28.2% strongly agreed, 53.8% agreed, 10.3% disagreed, and 7.7% strongly disagreed. Item 3 suggests that students pay close attention to

teaching through the use of instructional resources. 57.7% strongly agreed, 38.5% agreed, 2.6% disagreed, and 1.4% strongly agreed. Item 4 suggests that effective use of teaching resources makes illustrations clearer to students, promoting retention and memory. 47.3% strongly agreed, 41.0% agreed, 7.7% disagreed, and 3.8% strongly disagreed. Item 5 suggests that instructional resources enrich, visualize, simplify, transmit, and accelerate the teaching and studying process. Of which 48.7% strongly agreed, 47.4% agreed, 1.3% disagreed, and 2.6% strongly disagreed. Item 6 suggests that instruction resources help the teacher overcome physical difficulties that could have hindered his effective presentation of a given topic. Of which 28.2% strongly agreed, 53.8% agreed, 10.3% disagreed, and 7.3% strongly disagreed. Item 7 suggests that instruction resources help in achieving the stated behavioural objectives when evaluation is carried out at the end of the lesson or program, of which 51.3% strongly agreed, 38.5% agreed, 6.4% disagreed, and 3.8% strongly disagreed. Item 8 suggests that instruction and resources facilitate studying of abstract concepts by helping to concretize ideas and stimulate learners' imaginations. Of which 47.4% strongly agreed, 43.6% agreed, 3.8% disagreed, and 5.1% strongly disagreed. Item 9 suggests that they provide a teacher with means of exposing the student to a wide range of studying activities, of which 28.2% strongly agreed, 53.8% agreed, 10.3% disagreed, and 7.3% strongly disagreed. Item 10 suggests that, they assist the teachers in successfully and meaningfully communicating the intended message to the students so that they are exposed to, understand, retain, and apply the knowledge acquired in order to achieve overall educational objectives, of which 51.3% strongly agreed, 41.0% agreed, 3.8% disagreed, and 3.8% strongly disagreed.

In Table 6, the presentation of the determination of the responses of male and female teachers on the accessibility and effectiveness of the use of instructional resources for effective teaching is described.

Table 6. The independent t-test result of the difference in the X responses of male and female teachers on the effectiveness of the use of instructional resources for effective teaching

Gender	N	Χ	SD	t-cal	Df	t-crit.	Sig (2tailed)	Decision
Male	33	3.07	0.46					
				0.91	76	1.96	0.103	Accepted
Female	45	3.18	0.51					

Table 6 showed that there were 33 male and 45 female respondents. The male respondents had a X and standard deviation (SD) of 3.07 and 0.46, respectively, while female respondents had a X and SD of 3.18 and 0.51, respectively. The calculated value of t was 0.91 (t_{76} =0.91). The observed p-value was 0.103, which is greater than the fixed p-value of 0.05 (p>0.05). This implied that male and female teachers did not differ significantly in their responses regarding the effectiveness of the use of instructional resources for teaching. The result showed a X difference of 0.11, which is not statistically significant.

Table 7 is the presentation of the determination of the differences between the responses of experienced and inexperienced teachers on the accessibility and effective use of instructional resources for effective teaching.

Table 7. The independent t-test result of the X difference between the responses of experienced and inexperienced teachers on the accessibility and effective use of instructional resources for teaching.

Experienced Status	N	Χ	SD	t-cal	Df	t-crit.	Sig (2tailed)	Decision
Experienced	63	3.00	0.84					Not
				1.43	76	1.96	0.073	Rejected
Inexperienced	15	2.95	1.01					

Table 7 showed that there were 63 experienced and 15 inexperienced respondents. The experienced respondents had a X and SD of 3.00 and 0.84, respectively, while inexperienced respondents had a X and SD of 2.95 and 1.01, respectively. The calculated value of t was 1.43 (t_{76} =1.43). The observed p-value was 0.073, which is greater than the fixed p-value of 0.05 (p>0.05). This implied that experienced and less experienced teachers did not differ significantly in their responses regarding the accessibility and effective use of instructional resources for effective teaching. The result showed a X difference of 0.11, which is not statistically significant.

Table 8 is the presentation of the determination of the differences in the scores of junior high and senior high school teachers on the accessibility and effective use of instructional resources suitable for effective teaching.

Table 8. The results of an independent t-test on the X responses of junior high and senior high school teachers to the accessibility and effective use of instructional resources appropriate for effective teaching.

Types of schools	N	Χ	SD	t-cal	Df	t-crit.	Sig (2tailed)	Decision
Junior high schools	63	3.78	0.34					Not
				1.02	76	1.96	0.086	Rejected
Senior high schools	15	3.12	0.88					

Table 8 shows that there are 63 teachers from the junior high schools and 15 teachers from the senior high school. The teachers from junior high schools had a X and SD of 3.78 and 0.34, respectively, while teachers from senior high schools had a X and SD of 3.12 and 0.88, respectively. The calculated value of t was 1.01 (t_{76} =1.02). The observed p-value was 0.086, which is greater than the fixed p-value of 0.05 (p>0.05). This implied that junior high and senior high school teachers did not differ significantly in their responses regarding the effective use of instructional resources suitable for teaching. The result showed a X difference of 0.66, which is not statistically significant.

The study investigated the accessibility of teaching materials, effective teaching, and studying in high schools in Eleme, Rivers State, Nigeria. The study found that in terms of effective teaching based on gender, experience, and school type, there is no significant difference in the response of ordinary teachers to the accessibility and effective use of learning resources for effective teaching. As shown in Table 4-6, this means that there is no difference in the average response of men and women. The same is true in terms of experience and school type. This finding confirmed Chuke (2003), early findings, in which no significant differences were found in the use of teaching resources for teaching according to gender and school type. This means that most of the resources that have been determined to be used for teaching are not accessible in the school. This result is related to the results of a previous study by Onche (2014), who found that although textbooks are important for teaching, people criticize most schools for the lack of textbooks. They affect effective teaching in secondary (high) schools. They pointed out that the provision and effective use of educational resources in schools has a positive impact on teaching and learning at all levels. This result supports the previous findings of Ayeduso (2000), which believe that educational resources are the main determinant of effective teaching and academic achievement.

The following is the summary of the major findings of the study:

There was no significant difference in the X responses of teachers on the availableness and
effective use of instructional resources for effective teaching based on gender, teaching
experience, and type of school.

- Most of the instructional resources for teaching and studying are not accessible in high schools in Eleme, Rivers State, Nigeria.
- Instructional resources influence effective teaching and studying in high schools.

5. Conclusion and Recommendations

This study examined the accessibility and use of instructional resources for effective teaching and studying in high schools in Eleme, Rivers State, Nigeria. The research work was guided through four research questions and three research hypotheses. All seventy-eight teachers from eight high schools in the study area were selected from the entire population size. The research work was guided through four research questions and three research hypotheses, which formed the basis for the administered questionnaire. A well-structured questionnaire was used to get necessary information from the sample respondents, and all information collected was subjected to frequency counts and % analysis. Based on the analysis of the data collected from the administered questionnaire, it was gathered that most of the resources needed for effective teaching and studying are not accessible in high (secondary) schools in Eleme, Rivers State, Nigeria. This means that most of the instructional resources identified for effective teaching are not made accessible in the schools. Though most of the teachers agree that instructional resources are important in contributing to effective teaching and students' academic accomplishment, they do not show a need to provide these resources in their classrooms. This implies that, although the teachers know the importance of instructional resources, they do not incline to develop them. These may have many reasons. The result of the study seems to imply that teacher experience and qualification influence the level of improvisation and use of instructional resources for effective teaching and studying in high schools. One could guess that these may emanate from low morale and motivation towards their teaching. Another reason may be poor supervision from their school heads. Normally, heads of schools are supposed to be instructional supervisors, to ensure that instructions are being given and students are provided with effective teaching coupled with adequate instructional resources. The result also shows that only the chalkboard is adequately provided. Audio-visual resources are sufficiently accessible. This was as a result of a lack of power supply and skilled manpower, as well as the exorbitant cost of these resources.

Instructional resources influence the effective teaching and studying of school subjects in high schools. They are important resources needed for the realization of instructional objectives and educational goals, and the level of accessibility and use of these resources in teaching and studying should be improved in view of the conclusion drawn. However, the following recommendations were made in accordance with the result of the study:

- Curriculum planners and implementers and educational policymakers should sensitize the school and teachers on the need to place more prominence on the utilization and improvisation of instructional resources in teaching and studying school subjects.
- The government, as a matter of policy, should recruit more qualified graduate teachers to teach
 at the high school level. There is a need for qualified and professional teachers who, through
 their experience, will be able to build confidence in themselves and, as a result, will not be afraid
 to use or improvise instructional resources.
- Adequate instructional resources should be provided for effective teaching and studying processes.
- Criteria for instructional resource selection should be based on their suitability to function for the purpose they are designed for.

- Teachers should be individuals who are well prepared for their job completion, as the study
 encourages the use of instructional materials for a more realistic and effective teaching and
 studying process. This will make it easier for companies to train employees on the job, which
 will increase production.
- There is a need to provide in-service programs, organizing workshops and seminars for teachers
 on how to improvise and use instructional resources, especially those that require skills for
 operation. Such workshops could be held by the state or local government.
- High schools should receive funding from the government so they may buy the necessary instructional materials for efficient teaching and learning there.
- In order to enhance the supply of instructional resources, purchases should be made by competent hands, especially the teachers and head teachers.
- Given the high cost of various educational resources, suitable management strategies should be implemented to ensure proper upkeep of the existing resources.
- There is a need for teachers to be visiting resource centres through excursions or field trips in their area of specialization for effective improvisation and use of instructional resources.
- The Ministry of Education should regularly supervise schools to ensure that they always meet the approved standard.
- Further research should be conducted to determine the effect of instructional resources on student academic achievement, as well as a survey of the use of resource resources in teaching and studying in high schools within the study area, as well as a general study with a larger population.

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References

- Abayomi, R. (2009). A practical approach to effective utilization and maintenance of physical facilities in secondary schools. *African Journal of Educational Planning and Policy Studies, 7*(2), 204-216.
- Abdalla, R., & Qashou, A. (2020). The influence of social network use on students' academic performance. Palestine Technical University Research Journal, 2020, 8(2), 112-130.
- Abdelraheem, A., & Al-Rabani, A. (2005). Utilization and benefits of instructional media in teaching social studies courses. *Malaysian Online Journal of Instruction Technology, 2*(1), 1-4.
- Adegbija, A. (2007). An Assessment of the Needs of Educational Resources Centres in Nigeria. Ilorin, Nigeria: Doctoral thesis, University of Ilorin, Ilorin, Nigeria.
- Ayeduso, A. (2000). Status of educational resources in the administration of Business Education Programme in colleges of education in Niger State. *Business Education Journal*, 3(3), 182-190, 3(3), 182-190.
- Azih, N. (2008). An appraisal of teachers and teaching facilities available for teaching business studies in secondary schools in Abakaliki Urban. *Business Education Journal*, 6(2), 135-142.

- Odinakachi, E. O., Mbalisi, O. M., Ukhurebor, K. E., Opateye, J., & Leonard, E. (2023). Accessibility of instructional materials for effective teaching: outlook from high schools in Eleme, River State, Nigeria. *Cypriot Journal of Educational Science*. *18*(2), 456-469. https://doi.org/10.18844/cjes.v18i2.8225
- Bongotons, O., & Onyenwe, B. (2010). Availability and adequacy of ICT resources in business teacher education programmes of Nigeria. *Business Education Journal*, 7(2), 200-215.
- Castellacci, F., & Tveito, V. (2018). Internet use and well-being: A survey and a theoretical framework. *Research Policy*, 47(1), 308–325.
- Çebi, A., & Güyer, T. (2020). Students' interaction patterns in different online learning activities and their relationship with motivation, self-regulated learning strategy and learning performance. *Education and Information Technologies*, 25(6), 3975–3993.
- Chuke, L. (2003). Equipment and facilities in business education. *Business Education Book of Readings,* 1(3), 37-41.
- Fernández-Gutiérrez, M., Gimenez, G., & Calero, J. (2020). Is the use of ICT in education leading to higher student outcomes? Analysis from the Spanish autonomous communities. *Computers & Education*, 157(103969).
- García-Martín, S., & Cantón-Mayo, I. (2019). Use of technologies and academic performance in adolescent students. *Comunicar*. *59*, *73–81*.
- Liu, D., Kirschner, P., & Karpinski, A. (2017). A meta-analysis of the relationship of academic performance and social network site use among adolescents and young adults. *Computers in Human Behavior*, 77, 148–157, 77, 148–157.
- Mohajan, H.K. (2017). Two criteria for good measurements in research: Validity and reliability. Annals of Spiru Haret University, 17(3), 58-82.
- Nwankwo, W., & Ukhurebor, K. (2020). Web forum and social media: A model for automatic removal of fake media using multilayered neural networks. *International Journal of Scientific & Technology Research*, *9*(1), 4371- 4377.
- Nneji, C.C., Urenyere, R., Ukhurebor, K.E., Ajibola, S., Onaseso, O.O. (2022). The impacts of COVID-19-induced online lectures on the teaching and learning process: An inquiring study of Junior Secondary Schools in Orlu, Nigeria. *Frontiers in Public Health, 10, 1054536*.
- Oguguo, B.C.E., Ajuonuma, J.O., Azubuike, R., Ene, C.U., Atta, F.O., & Oko, C.J. (2020). Influence of social media on students' academic achievement. International Journal of Evaluation and Research in Education, 9(4), 1000-1009.
- Onche, A. (2014). Meeting the challenge of accessibility and utilization of modern instructional materials in rural secondary schools in Nigeria. *International Journal of Multidisciplinary Studies, 1*(2), 1-13.
- Singh, A.S. (2014). Conducting case study research in non-profit organisations. Qualitative Market Research: An International Journal, 17, 77–84.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's Alpha. International journal of Medical Education, 2, 53-55