

**AFRICAN SOCIAL AND EDUCATIONAL JOURNAL**  
**FACULTY OF BUSINESS ADMINISTRATION**  
**IMO STATE UNIVERSITY**  
**NIGERIA**

**VOL. 9 NO.3 SEPTEMBER 2020**

**TEACHERS UTILIZATION OF NON-TEXTUAL INSTRUCTIONAL MATERIALS AND ATTAINMENT OF  
QUALITY EDUCATION DELIVERY IN SECONDARY SCHOOLS IN PORT HARCOURT LOCAL  
GOVERNMENT AREA, RIVERS STATE, NIGERIA**

**BROWN, ROSEMARY ISIOMA**

Department of Educational Foundations  
Ignatius Ajuru University of Education  
Rumuolumeni, Port Harcourt  
Rivers State

**ABSTRACT**

*The study investigates teachers' utilization of non-textual instructional materials and attainment of quality education delivery in secondary schools in Port Harcourt Local Government Area, Rivers State Nigeria. The population of the study comprised all the 688 teachers and 16,663 students in all the sixteen (16) senior secondary schools in Port Harcourt Local Government Area Rivers State. A sample of 480 respondents (comprising 120 teachers and 360 students) were selected from 12 selected senior secondary schools in the study. A 38 items instrument titled "Teachers Utilization of Non-Textual Instructional Materials and Attainment of Quality Education Delivery Scale" (TUNIMAQEDS) with a reliability coefficient of .700 (using Cronbach Alpha ( $r_a$ ) method) was used to collect the data that was analyzed using mean and standard deviation to answer the research questions (with a criterion mean cut off of 2.5). The study revealed that: virtual learning platforms (like Zoom, WhatsApp, YouTube, etc.), computers, educational software, smart board, e-libraries and e-books, multimedia projector including television and video recorders were non-textual instructional materials that could enhance quality educational delivery due to their flexibility, compatibility and real time access to materials from different sources and educational systems. The study recommended amongst others that the curriculum of senior secondary schools should be reviewed with a view at incorporating non-textual materials such as computers, smart-boards, projectors, educational software, virtual learning platforms like zoom, WhatsApp, YouTube, among others as the medium of instruction in order to globalize and enhance the quality of the educational system in Rivers State.*

*Keywords: Teachers Utilization, Non-Textual Instructional Materials, Quality Education Delivery, Port Harcourt.*

**Introduction**

Globally and in Nigeria, school activities and programmes are encapsulated in a curriculum that is expected to be successfully implemented in order to realize the goal of delivering quality education across all levels. The United Nations Educational, Scientific and Cultural Organization (2012) centered the aims of education on four pillars: learning to know, learning to do, learning to live together and learning to be. Generally, instructional materials suffice as a vital means for the realization of these aims or objectives of education. Corroborating this view, Ogbaji (2017) asserted that instructional materials are relevant

resources or tools utilized by a teacher to facilitate teaching and learning and for the purpose of making the contents of the instructions more practical and less vague.

Isola (2010) described instructional materials as objects or devices that assist the teachers to present their lessons cogently and sequentially to the learners. On the other hand, Ogbaji (2017) stated that instructional materials are also educational inputs and they are of vital importance in the successful implementation of any curriculum. They include relevant and appropriate textbooks, visual and audio-visual materials like globes, charts, slides, maps, tapes etc. are of paramount necessities in the teaching-learning process. In particular, audio-visual materials helps to supplement, reminiscence, consolidate and concretize what is read in the textbooks and journals including that taught in the class.

A central aim for designing instruction according to Ogbondah (2008), is to ensure that no one is educationally disadvantaged and that all students have equal opportunities to use their individual talents to the fullest degree. Hence, the appropriate use of non-textual instructional materials can help facilitate realizing the objectives of quality education. UNESCO (2012) stressed that the quality of learning would be assessed by the capacity of learners irrespective of their stage (infants, children, adolescents, youth and adults) to acquire knowledge, skills and values to productively contribute in societal development, even though, teacher factors are important indicators and drivers of effective teaching and successful curriculum implementation. However, the use of non-textual materials (like computer, educational software, television, ICT facilities, etc.) increases and makes learning more concrete, captivating, real, flexible and practical experience that could enhance students performance in both short and long run (Ordu & Amadi (2019).

In addition, the use of non-textual instructional materials gives the learner opportunity to touch, manipulate and utilize the non-print devices that are relevant to 21<sup>st</sup> century teaching and learning process. This aligned with the assertion of Nwadinigwe (2010) that learning is a process through which knowledge, skills, habits, facts, ideas and principles are acquired, retained (i.e. reminisced or recalled) and utilized; and the only means, resource and tool for achieving this educational goal is through the use of instructional materials. Corroborating this view, Meziobi et al. (2015) observed that well planned and properly utilization of the relevant non-textual instructional materials aids clarity and comprehensibility in the knowledge and skills that can be acquired and applied in secondary schools.

Instructional materials remain an important schooling (i.e. teaching and learning) resource in especially secondary schools. However, Esu and Inyang-Abia (2004) observes that different subjects require different type, quantity and mode of instructional materials in order for them to be effectively used to enhance students learning. Ogbaji (2017) aligned with the assertion of Esu and Inyang-Abia (2004) that virtually all subjects (like Geography, English Language, Social Studies, Mathematics, Biology, Chemistry, etc.) require both textual and non-textual materials for effective delivery of teaching and learning activities. While textual materials refers to the print materials (like textbooks, magazines, periodicals, journals and newspapers, etc.) that are used by the teachers and students for instructional processes. The non-textual materials denote the non-print materials (such as radio, television, new media, smart-boards, films, videotapes, audiotapes, games, computer, internet facilities, educational

software, zoom, virtual platforms, etc.) that are used to facilitate instructional delivery in secondary schools. Anyanwu (2013) observed both the non-textual materials help students in acquiring clear concepts of subject matter in each lesson.

It is important to state, that instructional materials like electronic communication mode, educational software, computer assisted instruction (CAI), virtual learning platforms (like zoom), that are captured under the auspices of non-textual materials are said to more effectively promote students' reminiscence, and academic performance if provided and maintained (Ordu & Amadi, 2019). According to Musbah and Mohammed (2013), e-learning is rapidly evolving with the use of online or virtual learning platforms (such as zoom) as the 21<sup>st</sup> century medium for instructional delivery in secondary schools. This is because e-learning platforms aptly feature as non-textual materials that enable teachers and students to have continuous access to course materials, broadcast, and announcement, submit and receive feedback from different sources and locations.

Non-textual instructional materials is basically a means to an end (i.e. attainment of quality education). In view of this, Ogabji (2017) reiterated that teachers' appropriate use of the relevant non-textual materials in teaching certain subjects (like Social Studies, Geography, Mathematics, Biology, Physics, etc.) is the major issue that can make the lesson more effective, clear and vivid. Hence, it could deduced from Ordu and Amadi (2019) assertion that non-textual materials suits as instructional medium that enhances interactivity, practicality and flexibility in terms of scheduling, time and distance of participants in a class session or learning programme. In other words, non-textual materials could suffice as a veritable tool for improved delivery of quality education in secondary schools in Rivers State, Nigeria and globally.

Quality education is measured among other factors through curriculum implementation and effective teaching of specific subjects in such a way that it would stimulate student's interest, reminiscence of learning and eventually enhance their achievement in the examination (Akinleye, 2010). Hence, in order to achieve the goal of curriculum implementation including effective teaching and learning process, there is the need for use of instructional materials. Instructional materials are the different teaching aids or apparatus which a classroom teacher employs to facilitate his or her teaching for the achievement of the stated objective. Agina-Obu (2005) see teachers use of instructional materials as the practical demonstration of the tenets of the teaching profession that is highly relevant to effective delivery of teaching and learning.

### **Statement of the Problem**

In contemporary education, non-textual instructional materials (especially computer-aided materials) are of high value in importing information, clarifying difficult and abstract concepts, stimulating thought, sharpening observation, creating interest and satisfying individual difference. Hence, the use of instructional materials in secondary schools facilitates the act of teaching which passes ideas, skills and attitude from the teacher to the learner. In Nigeria, for example experience has shown that spoken words alone in the communication of ideas are grossly ineffective and inefficient in producing desired learning outcomes. Consequently, one of the major problems facing education sector in Nigeria is the low level of use of non-textual instructional materials especially ICT related, which has majorly adduced to poor integration of educational technology and teachers and students apathy towards technology-induced education.

Currently, the teaching curricular stresses student's involvement in class activities and teachers use of pedagogy that moves away from teacher dominated to student-centered. However, students' ignorance and apathy could manifest in their lack of knowledge on the tenets and skills for integrating modern non-textual instructional materials in schooling process. Esu et al. (2006) stated that we learn and remember 10% of what we hear, 20% of what we discuss with others and as high as 70% of what we see, experience and practice. In specificity, the hitherto verbalistic and theoretical method of teaching and learning of even practical oriented subjects (like Mathematics, Social Studies, Geography, etc.) in secondary schools has overtime resulted to the low morale and interest of students that culminates to declining quality of education in Nigeria. This is against the backdrop effective teaching and students' comprehension of topics and concepts is challenged without the use of relevant non-textual instructional materials. Hence, this study examines teachers' utilization of non-textual instructional materials and attainment of quality education delivery in secondary schools in Port Harcourt Local Government Area, Rivers State Nigeria.

### **Objectives of the Study**

In specific terms, the objectives of the study are to:

1. Identify the non-textual instructional materials that would be used to enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.
2. Ascertain the extent the criteria for assessing non-textual instructional materials that would enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.
3. Determine the principles involved in teachers' utilization of non-textual instructional materials that would enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.
4. Examine the extent challenges in the utilization of non-textual instructional materials would influence the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.

### **Research Questions**

The following research questions guided this study:

1. What are the non-textual instructional materials that enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?
2. To what extent does the criteria for assessing non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?
3. What are the principles involved in teachers' utilization of non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?
4. To what extent do the challenges in the utilization of non-textual instructional materials influence the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?

### Scope of the Study

The study would focus on examining teachers utilization of non-textual instructional materials (like computer, multimedia projector, information and communication technology facilities (ICT), educational software, computer assisted instruction (CAI), virtual learning platforms (like zoom, WhatsApp, etc.), and attainment of quality education delivery in secondary schools. In terms of geographic scope, the study would be conducted in Port Harcourt Local Government Area, Rivers State Nigeria. While in terms of content scope, the study would centre in the teachers and students in senior secondary schools in Port Harcourt Local Government Rivers State Nigeria. Furthermore, the independent variable is non-textual instructional materials while the dependent variable is attainment of educational quality (measured by curriculum implementation and effective teaching and learning).

### Methodology

**Research Design:** This study adopted the correlational research design. Nwankwo (2013) stated that correlational research design is utilized in a study where the researcher is interested in finding out whether there is a relationship between two or more variables, and data from such variables are in ratio or interval scale (scores) to create the possibility for the scores to be correlated. In specificity, this study intends to establish the relationship between teachers' utilization of non-textual instructional materials and attainment of quality education delivery in secondary schools in Port Harcourt Local Government Area, Rivers State Nigeria.

**Population of the Study:** The population of the study consist of all the 688 teachers (184 male and 504 female) including the 16,663 students (7,712 male and 8,951 female) in all the sixteen (16) senior secondary schools in Port Harcourt Local Government Area Rivers State in the 2019/2020 academic session (Rivers State Senior Secondary School Board, 2020).

**Sample and Sampling Technique:** A sample of 480 respondents (comprising 120 teachers and 360 students) in 12 selected senior secondary school participated in the study. The sample was drawn using a multi-sampling approach in three phases. Firstly, quota (i.e. proportion or percentage) sampling was used in the selection of 12 senior secondary schools representing 75% of the 16 senior secondary schools in Port Harcourt Local Government Area. Secondly, random sampling technique was used in the selection of ten (10) teachers from each of the 12 selected senior secondary schools totalling to 120 teachers that were selected in Port Harcourt Local Government Area. In the third and final phase, random sampling technique was used in the selection of 30 students (10 each from SSC I, SSC II and SSC III) in the 12 selected senior secondary schools, totalling 360 students that participated in the study.

**Instrument for the Study:** The instrument for data collection was a titled "Teachers Utilization of Non-Textual Instructional Materials and Attainment of Quality Education Delivery Scale" (TUNIMAQEDS). The TUNIMAQEDS instrument was a self-structured 38 item instrument that was patterned after a four point rating scale of "Very High Extent" (VHE = 4 Points), "High Extent" (HE = 3 Points), "Low Extent" (LE = 2 Points), and "Very Low Extent" (VLE = 1 Point), and "Strongly Agreed" (SA = 4 Points), "Agreed" (A = 3 Points), "Disagree" (D = 2 Points) and "Strongly Disagree" (SD = 1 Point). Furthermore, the TUNIMAQEDS instrument consisted of

three sections, Sections A consisted the demographic information of the senior secondary school teachers and students, Section B comprised 28 item response on the variables of non-textual instructional materials, while Section C comprised 10 items that elicited responses on the variables of quality education delivery.

**Validation of the Instrument:** The face and content validity of the TUNIMAQEDS instrument was determined by the two educational experts or lecturers from the Department of Educational Foundations, Ignatius Ajuru University of Education. In other to achieve this, these validates were presented with the topic, objectives, and research questions formulated in this study to ascertain the appropriateness of topic, clarity of language, and eligibility of items in the TUNIMAQEDS instrument to effectively measure what it purports to measure. Thereafter the comments, suggestions, criticisms, and remarks of these validates were incorporated in the construction of the refined version of the TUNIMAQEDS instrument prior to eliciting data from the respondents.

**Reliability of the Instrument:** The reliability and internal consistency of the TUNIMAQEDS instrument was ascertained or determined using Cronbach Alpha method. In order to ascertain the reliability of the non-cognitive TUNIMAQEDS instrument, fifty (50) respondents (comprising 20 teachers and 30 students) were selected from 5 senior secondary schools in Tai Local Government Area (which was not included among the study area). Then 50 copies of the TUNIMAQEDS instrument was administered to the teachers and students and upon completion the TUNIMAQEDS instrument was retrieved, coded and analyzed using the Cronbach Alpha ( $r_a$ ) method to obtain the reliability coefficient of .700, which necessitated the use of the TUNIMAQEDS instrument for the actual administration.

**Method of Data Collection:** The face-to-face and direct delivery technique was used for the administration of the TUNIMAQEDS instrument to the teachers and students by the researcher in company of the research assistants upon the approval of the principals of the twelve (12) selected senior secondary schools in the study area. Out of the 480 copies of the serially numbered TUNIMAQEDS instrument administered to the respondents, only 449 copies (representing approximately 94% return rate) were validly retrieved copies that was used for the analysis.

**Method of Data Analysis:** Collected data was scored, coded and subsequently analyzed using mean and standard deviation to answer the research questions (at criterion mean cut off of 2.5), while Pearson Product Moment Correlation (PPMC) was used to test the hypotheses at 0.05 level of significance. All statistical computations were carried out using the Statistical Package for Social Science (SPSS) 23.0.

## **Results**

**Research Question 1:** What are the non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?

**Table 1:** Mean and Standard Deviation on the non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area

S/N	The non-textual instructional materials that enhances the attainment of educational quality include:	N = 449		Decision
		Mean	SD	
1	Computers	3.41	.81	*
2	Multimedia projector	3.01	.96	*
3	Virtual learning platforms (like Zoom, WhatsApp, YouTube, Skype, etc.)	3.48	.60	*
4	Educational software like computer assisted instruction (CAI)	3.32	.73	*
5	Television and video recorders	2.77	1.08	*
6	Smart board	3.14	.82	*
7	e-libraries and e-books	3.03	.97	*
<b>Grand Mean</b>		<b>3.17</b>	<b>0.85</b>	<b>*</b>

\* (Agree) =  $\geq 2.50$  while # (Disagree) < 2.50.

Table 1 shows the mean rating and standard deviation on the non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: virtual learning platforms (like Zoom, WhatsApp, YouTube, Skype, etc.) ( $\bar{X}$  =3.48) in item 3, computers ( $\bar{X}$  =3.41) in item 1, educational software like computer assisted instruction (CAI) ( $\bar{X}$  =3.32) in item 4, smart board ( $\bar{X}$  =3.14) in item 6, e-libraries and e-books ( $\bar{X}$  =3.03) in item 7, multimedia projector ( $\bar{X}$  =3.02) in item 2, while the least was television and video recorders ( $\bar{X}$  =2.77) in item 5. Furthermore the grand mean score of 3.17 indicates the on-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.

**Research Question 2:** To what extent does the criteria for assessing non-textual instructional materials enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?

**BROWN, ROSEMARY ISIOMA**

**TEACHERS UTILIZATION OF NON-TEXTUAL INSTRUCTIONAL MATERIALS AND ATTAINMENT...**

**Table 2: Mean and Standard Deviation on the extent the criteria for assessing non-textual instructional materials enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area**

S/N	The extent the criteria for assessing non-textual instructional materials enhance the attainment of educational quality include:	N = 449		Decision
		Mean	SD	
1	Flexibility of the time and modes of lesson delivery	3.48	.78	HE
2	Ability to reinforce students' knowledge	3.35	.75	HE
3	Aiding access to real time information and materials from e-libraries	3.19	.93	HE
4	Integrates learners from distant location anywhere in the world	3.16	.81	HE
5	Bring together learners from different educational system and backgrounds into one classroom	3.00	.93	HE
6	Compatibility with varieties of instructional models that is used across different educational systems	3.24	.82	HE
7	Timely access, retrieval and downloading of wide range of materials from different sources	2.98	.92	HE
<b>Grand Mean</b>		<b>3.20</b>	<b>0.85</b>	<b>HE</b>

**HE (High Extent) =  $\geq 2.50$  while LE (Low Extent) < 2.50.**

Table 2 shows the mean rating and standard deviation on the criteria for assessing non-textual instructional materials enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: flexibility of the time and modes of lesson delivery ( $\bar{X}$  =3.48) in item 1, ability to reinforce students' knowledge ( $\bar{X}$  =3.35) in item 2, compatibility with varieties of instructional models that is used across different educational systems ( $\bar{X}$  =3.24) in item 6, aiding access to real time information and materials from e-libraries ( $\bar{X}$  =3.19) in item 3, integrates learners from distant location anywhere in the world ( $\bar{X}$  =3.16) in item 4, bring together learners from different educational system and backgrounds into one classroom ( $\bar{X}$  =3.00) in item 5, while the least was timely access, retrieval and downloading of wide range of materials from different sources ( $\bar{X}$  =2.98) in item 7. Furthermore the grand mean score of 3.20 indicates the criteria for assessing non-textual instructional materials enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.

**Research Question 3:** What are the principles involved in teachers' utilization of non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?



**Table 3: Mean and Standard Deviation on the principles involved in teachers' utilization of non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area**

S/N	The principles involved in teachers' utilization of non-textual instructional materials that enhances the attainment of educational quality include:	N = 449		Decision
		Mean	SD	
1	Increases teachers and students innovativeness	3.07	.93	*
2	Using non-textual materials broadens teachers and students versatility with global trends	3.16	.82	*
3	Increased opportunity for teachers and students to be detailed with information they send and receive	2.97	.96	*
4	Increases teachers and students familiarity with the techniques for utilizing the particular non-instructional materials in the classroom	3.38	.86	*
5	Increased teachers and students continuous evaluation and improvement of their IT skills	3.20	.96	*
6	Using non-textual materials broadens teachers and learners knowledge	3.18	.86	*
7	Easily brings an educational system and perspective to the world	3.14	.88	*
<b>Grand Mean</b>		<b>3.16</b>	<b>0.90</b>	<b>*</b>

\* (Agree) =  $\geq 2.50$  while # (Disagree) < 2.50.

Table 3 shows the mean rating and standard deviation on the principles involved in teachers' utilization of non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: increases teachers and students familiarity with the techniques for utilizing the particular non-instructional materials in the classroom ( $\bar{X}$  =3.38) in item 4, increased teachers and students continuous evaluation and improvement of their IT skills ( $\bar{X}$  =3.20) in item 5, using non-textual materials broadens teachers and learners knowledge ( $\bar{X}$  =3.18) in item 5, using non-textual materials broadens teachers and students versatility with global trends ( $\bar{X}$  =3.16) in item 2, easily brings an educational system and perspective to the world ( $\bar{X}$  =3.14) in item 7, increases teachers and students innovativeness ( $\bar{X}$  =3.07) in item 1, while the least was increased opportunity for teachers and students to be thorough or detailed with information they send and receive ( $\bar{X}$  =2.97) in item 3. Furthermore the grand mean score of 3.16 indicates the principles involved in teachers' utilization of non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.

**TEACHERS UTILIZATION OF NON-TEXTUAL INSTRUCTIONAL MATERIALS AND ATTAINMENT...**

**Research Question 4:** To what extent does the challenges in utilizing non-textual instructional materials influence the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area?

**Table 4: Mean and Standard Deviation on the extent the challenges in utilizing non-textual instructional materials influence the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area**

S/N	The extent the challenges in utilizing non-textual instructional materials influence the attainment of educational quality in secondary schools include:	N = 449		Decision
		Mean	SD	
1	Network fluctuation	3.35	.82	HE
2	Epileptic power supply	3.27	.78	HE
3	Poor maintenance culture	3.01	.83	HE
4	Insufficient fund for installing and maintaining technology facilities	3.07	.94	HE
5	Lack of self or sponsored IT training for teachers	2.88	.92	HE
6	Poor internet connectivity	3.13	.83	HE
7	Shortage of technology savvy teachers	3.16	.92	HE
<b>Grand Mean</b>		<b>3.14</b>	<b>0.86</b>	<b>HE</b>

**HE (High Extent) =  $\geq 2.50$  while LE (Low Extent) < 2.50.**

Table 4 shows the mean rating and standard deviation on the challenges in utilizing non-textual instructional materials influence the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: network fluctuation ( $\bar{X}$  =3.35) in item 1, epileptic power supply ( $\bar{X}$  =3.27) in item 2, shortage of technology savvy teachers ( $\bar{X}$  =3.16) in item 7, poor internet connectivity ( $\bar{X}$  =3.13) in item 6, insufficient fund for installing and maintaining technology facilities ( $\bar{X}$  =3.07) in item 4, poor maintenance culture ( $\bar{X}$  =3.01) in item 3, while the least was lack of self or sponsored IT training for teachers ( $\bar{X}$  =2.88) in item 5. Furthermore the grand mean score of 3.14 indicates the challenges in utilizing non-textual instructional materials influence the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.

**Discussion of Findings**

The result in Table 1 revealed a grand mean score of 3.17 which indicated that the non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: virtual learning platforms

(like Zoom, WhatsApp, YouTube, Skype, etc.), computers, educational software like computer assisted instruction (CAI), smart board, e-libraries and e-books, multimedia projector, and television and video recorders. This finding is consistent with the views of Ordu and Amadi (2019) that non-textual instructional materials include: virtual learning platforms (like Zoom, WhatsApp, YouTube, Skype, etc.), computers, educational software like computer assisted instruction (CAI), smart board, e-libraries and e-books, multimedia projector, and television and video recorders.

The result in Table 2 revealed that a grand mean score of 3.20 which indicated that the criteria for assessing non-textual instructional materials enhance the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: flexibility of the time and modes of lesson delivery, ability to reinforce students' knowledge, compatibility with varieties of instructional models that is used across different educational systems, aiding access to real time information and materials from e-libraries, integrates learners from distant location anywhere in the world, bring together learners from different educational system and backgrounds into one classroom, and timely access, retrieval and downloading to wide range of materials from different sources. This finding is in agreement with the position of Musbah and Mohammed (2013) that the criteria for accessing non-textual materials will lead to the integration of e-learning among other online or virtual learning platforms (such as zoom) as the 21<sup>st</sup> century medium for instructional delivery in secondary schools.

The result in Table 3 revealed a grand mean score of 3.16 which indicated that the principles involved in teachers' utilization of non-textual instructional materials that enhances the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: increases teachers and students familiarity with the techniques for utilizing the particular non-instructional materials in the classroom, increased teachers and students continuous evaluation and improvement of their IT skills, using non-textual materials broadens teachers and learners knowledge, using non-textual materials broadens teachers and students versatility with global trends, easily brings an educational system and perspective to the world, increases teachers and students innovativeness, and increased opportunity for teachers and students to be thorough or detailed with information they send and receive. This finding is consistent with Ogabji (2017) that teachers appropriate use of the relevant non-textual materials in teaching certain subjects (like Social Studies, Geography, Mathematics, Biology, Physics, etc.) would manifest in them observing the principles for utilizing non-textual instructional materials.

The result in Table 4 revealed a grand mean score which indicated that the challenges in utilizing non-textual instructional materials influence the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area include: network fluctuation, epileptic power supply, shortage of technology savvy teachers, poor internet connectivity, insufficient fund for installing and maintaining technology facilities, poor maintenance culture, and lack of self or sponsored IT training for teachers. This finding is consistent with Meziobi et al. (2015) that challenges such as poor power supply, network problem, poor internet connectivity, dearth of trained IT personnel, among others will affect the proper utilization of the relevant non-textual instructional materials in secondary schools.

### **Conclusion**

The study concludes that virtual learning platforms (like Zoom, WhatsApp, YouTube, Skype, etc.), computers, educational software like computer assisted instruction (CAI), smart board, e-libraries and e-books, multimedia projector including television and video recorders were non-textual materials that should be used for instructional delivery. Due to their flexibility in terms of time and modes of lesson delivery, compatibility in bring together learners from different educational system and backgrounds into one classroom and timely access, retrieval, downloading and sending of wide range of materials from different sources and educational systems.

Furthermore, increased teachers and students' familiarity and continuous improvement in the skills and techniques for utilizing specific non-instructional materials in the classroom, would undoubtedly broaden their knowledge, enhance their versatility with global trends, and increase their innovative capacity that could easily enhance the quality of the educational system. However, the issue of network fluctuation, epileptic power supply, shortage of technology savvy teachers, poor internet connectivity, insufficient fund for installing and maintaining technology facilities, poor maintenance culture, and lack of self or sponsored IT training for teachers are challenges that tends to undermine the utilization of non-textual instructional materials towards the attainment of educational quality in senior secondary schools in Port Harcourt Local Government Area.

### **Recommendations**

Based on the findings of the study, the following recommendations were proffered:

1. The curriculum of senior secondary schools should be reviewed with a view at incorporating non-textual materials such as computers, smart-boards, educational software, television, video recorders, multimedia projectors, virtual learning platforms like zoom, WhatsApp, YouTube, among others as the medium of instruction in order to globalize our educational system in Rivers State.
2. Senior secondary school teachers are encouraged to utilize non-textual materials during their lesson preparation and teaching in order to afford them the opportunity of vast array of materials and resources that they would present to enhance the knowledge of their learners and at the same time enhancing the educational quality.
3. The Ministry of Education should emphasize on IT knowledge and competence as a pre-condition for the recruitment of teachers. This would facilitate potential teachers self-acquisition of IT skills and knowledge in order to enhance their employability.
4. Fund should be provided for the acquisition, installation and maintenance and even engagement of IT personnel that would operate the non-textual materials in order to ensure that senior secondary schools in Rivers State are digitally or technologically compliant.
5. Workshop should be organized to help teachers and probably students come to terms with the current innovations in utilizing technology-aided facilities in senior secondary schools.

**References**

- Afolabi, S. S., & Adeleke, J. O. (2010). Assessment of resources and instructional materials status in the teaching of mathematics in south western Nigeria. *European Journal of Scientific Research*, 43(1), 406-410.
- Agina-Obu, T. N. (2005). The relevance of instructional materials in teaching and learning. In I. Robert-Okah & K. C. Uzoeshi (Eds.), *Theories and practice of teaching*, Harey Publication.
- Akinkelu, A. N. (2010). Towards the transformation of teacher education in Nigeria: The issue of quality. *Journal of Pristine*, 17(1), 2250-9593.
- Akinleye, G. A. (2010). Enhancing the quality of life in this complicated but dynamic world. 25th Inaugural lecture, University of Ado-Ekiti, April 6.
- Anyanwu, J. M. (2013). Influence of modern instructional materials on the effectiveness of teaching and learning in Social studies in secondary schools in Owerri Educational Zone Imo State. *International Journal of Multidisciplinary Studies*, 4(2), 79-88.
- Asiyai, R. (2012). Assessing school facilities in public secondary schools in Delta State, Nigeria. *African Journals*, 6(1), 87-96.
- Esu, A. E. O., Enuokoha, O. I., & Umoren, G. U. (2006). Curriculum development in Nigeria for colleges and universities. Mediamark Associates.
- Esu, A. E. O., & Inyang-Abia, O. (2004). *Social Studies technologies, methods & media* (2<sup>nd</sup> Edition). Double Diamond Publication.
- Isola, O. M. (2010). Effect of standardized and improvised instructional materials on students academic Achievement in secondary school physics. Unpublished M. Ed. project, University of Ibadan, Ibadan.
- Meziobi, D. I., Nwalado, E. N., & Igbokwe, U. L. (2015). Social Studies and resources. In Edinyang, S. D. & Effiom, V. N. (eds) *Social Studies material & resources*. Maesot & Company.
- Meziobi, K. I., Nwosu, A., & Meziobi, K. S. (2013). Community resources: The least thought about and utilized in Social Studies pedagogy in Nigeria. *Rivers Journal of Social Studies* 8(6), 1-14.
- Ogbaji, D. I. (2017). Teachers' perception of the utilization of instructional materials in teaching social studies in junior secondary schools in Calabar municipality, Cross River State, Nigeria. *Global Journal of Educational Research*, 16, 95-100.
- Ogbondah, L. (2008). An appraisal of instructional materials used to educate migrant fishermen's children in Rivers State, Nigeria. *International Journal of Scientific Research in Education*, 1(1), 13-25.
- Ordu, R., & Amadi, E. (2019). Utilization of instructional materials and students' academic performance in junior secondary schools in selected local government areas in Rivers State. *International Journal of Innovative Social & Science Education Research*, 7(3), 54-62.

**BROWN, ROSEMARY ISIOMA**

**TEACHERS UTILIZATION OF NON-TEXTUAL INSTRUCTIONAL MATERIALS AND ATTAINMENT...**

Piajet, J. (2001). Cognitive theory of multimedia instruction. McGraw Hill.

United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2012). Asia-Pacific: end of decade notes on education for all. UNESCO Publication.