# LEARNING STYLES, INFORMATION RETRIEVAL SKILLS AND MEDIA RESOURCE UTILISATION AMONG SECONDARY SCHOOL STUDENTS IN OYO STATE, NIGERIA

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## Introduction

The use of media resources has been found to be of major significant in schools for both teachers and students (Northern Territory Government, 2017). Media resources include text books and novels; film and television; radio programs; digital media including text, audio, video and graphics as well as news; internet; computer games; plays and performances; lectures/speeches; music; dance and human movement; objects and artefacts; among others. According to Cisco Unified Communications (2013), media resource could be software-based or hardware-based entity that performs media processing functions on the data streams to which it is connected. From a general perspective, media resource could include both traditional and electronic resources.

Media information resources form an integral part of every category of libraries and assist students in their various academic activities such as learning, reading, examination performance, among others, It is also observed to assist the teachers in teaching and research. Despite its importance to students and even the teachers, it has been affirmed by Ukachi (2015); Akpojotor (2016) and Madondo, Sithole and Chisita (2017) that the use of media resources is not encouraging among students are grossly underutilised. Considering the major objectives in the provision of media resources for students, it could be affirmed that such objectives may be derail with the low utilization of media resources among students. Hence, it is important to understand the major factors that have influence the utilization of media resources among students.

Several factors have been noted that could influence the utilisation of media resources among users. For example, earlier studies have shown that timely availability, easy accessibility and searching skills, knowledge of the structure of the database, search and retrieval skills are important factors that could influence the utilisation of media resources among students. Brophy (2012) noted that most often, students do not actually appreciate the necessary skills in the use of media resources. In addition, Baikady and Mudhol (2013) noted that the ability to find, retrieve, and synthesise information effectively is a transferable skill useful for future life as well as enabling the

positive and successful use of the media resources among students. Another major problem was the lack of information retrieval skills and information literacy skills for exploiting media resources, hence making the level of usage of media resources by secondary students to be very low (**Madondo et al., 2017**). Also, Franzoni, Assar, Defude and Rojas (2008) and Balakrishnan and Lay (2015) have noted that students' learning styles can have influence of the use of certain media resources. Although, these factors are considered important, this present study focuses on the students learning styles and information retrieval skills as major factors influencing the utilisation of media resources among students.

Learning styles is known to be an important ingredient in students' academic career which also include the use of media resources. According to Shaw and Marlow (1999), learning styles describes how learners which include students interact, how they acquire knowledge, or how they respond to stimuli with respect to their learning environments. Balakrishnan and Lay (2015) noted that understanding the various learning styles could aid the teachers and students and also help translate educational activities into good performance, and also better achievement throughout the students' life time. Also, it can help educators to better design and customize their teaching processes and activities to suit and fit in the different groups of students having different learning styles. Also, there are different theories of learning styles that help grouped learning styles into types. Sadler Smith model (1997) grouped learning styles into four broad categories: cognitive personality elements; information-processing style; approaches to studying and instructional preferences. Adapting the VARK Model by Fleming (2001) also grouped learning styles into four namely: Visual (V), Aural (A), Read/Write (R), and Kinesthetic (K). According to Boneva and Mihova (2012), the different types of learning styles are visual learners, auditory learners, kinaesthetic (tactile) learners. Further development has made Flores (n.d.) to also group the learning styles into aural or auditory, visual, verbal, kinesthetic, active & reflective, sensing & intuitive, sequential & global learning styles.

The visual learners are very aware of the environment, thinks in terms of physical space; likes to draw, do jigsaw puzzles, read maps, daydream, etc. They remember best what they see such as on pictures, diagrams, flow charts, time lines, films, and demonstrations. To the visual learner, seeing is hearing. The verbal learners get more out of words-written and spoken explanations and understand ore when things are explained in words. The **kinaesthetic** learners possess some keen sense of body awareness; likes movement, making things, touching; communicates well through body language. Active learners retain and understand information best by doing something active with it which could include discussing or applying it or explaining it to others as in a tutorial class or among group of individuals. Reflective learners prefer to think with information obtained first. Sensing learners like learning facts, and are intuitive learners who often prefer discovering possibilities and relationships. They often tend to solve problems by well-established methods and don't like complicated issues and surprises. Intuitive learners on the other hand like innovation and don't like repetition during communication. Sensing learners would more likely than Intuitive learners resent being tested on information that has not been explicitly covered in class.

The sequential learners gain understanding of issues only in linear and gradual steps, with each and every step following logically from the previous one and the previous connected to the next. Global learners learn in large jumps and lump sum whole, and can absorb information almost randomly without having any connections between or among them, and then suddenly find ways to link them and understand them. Sequential learners would follow logical stepwise paths in finding solutions while global learners are able to solve complex problems quickly or juxtapose things together with novelty once the information have been fully grasped through big picture, however, they could have difficulty in explaining how they achieve this (Felder and Soloman, 1993).

Also, the learning styles could be different among students and factors responsible for these differences are environmental, emotional, sociological, physical, and psychological (Boneva and Mihova, 2012). The justification for the adoption of students learning styles as a major factor affecting the utilization of media resources is hinged on the definition provided by Study Skills and Supplemental Instruction Centre (2008) and ASB learning styles lab (2010). According to ASB learning styles lab (2010), learning styles could be defined as the methods applied whenever there is need to concentrate on new and difficult information; absorb this information through the senses; process the information and transform it into knowledge; store this knowledge in the brains; and retain the knowledge stored.

Another important factor that could affect media resources utilisation is the information retrieval skiils of students (Baikady and Mudhol, 2013; Madondo et al., 2017). Information retrieval could be referred to as retrieving documents that are likely to be relevant to a student's information need as expressed by the queries. According to Ajiboye, Oyedipe and Alawiye (2013), information retrieval skill is required to selectively retrieve appropriate, accurate and sufficient information stored in documents from all the information that may not be relevant for the students' use.  A major justification for the need for information retrieval skills in the utilization of information is that such skill in information retrieval reduces the time, cost and other resources wasted in seeking information. Hence, outside the information retrieval skills, students may have problems with retrieving good information that would meet the definite needs hence, affecting the utilization of media information resources. When students lack information retrieval skills, the availability and accessibility of media information resources may be wastage of efforts. To this end, Ajiboye et al. (2013) affirmed that to overcome the problem of retrieving information towards enhancing the media information utilisation, students could be required to possess a combination of skills which include informational retrieval skill, operational retrieval and strategic retrieval skills to make the process of retrieving information a simple task (Gui, 2007; Ajiboye et al., 2013). Gui (2007) stated that that information retrieval skills by students include a combination of skill that is needed to navigate, select, evaluate and re-use information.

Operational retrieval skill is the ability to demonstrate some level of proficiency in the use of computer system and also the various network connections. Strategic retrieval skill refers to the capability of using the computer and network sources to achieve

certain and also general goals which could lead to improving position in society (Gui, 2007). Hence, retrieval skill is a combination of the information, operational and strategic retrieval skills. This is because according to Saunders (2008), media resources cannot be retrieved if the students cannot operate the system. Also, students need the strategic retrieval skills because if the ability to plan, create appropriate queries and search terms which would enable the students to retrieve needed information for academic purposes. To this end, in considering the influence of students' information retrieval skills on media resources utilization, the three domain of retrieval skills would be considered among students' vis-a-vis the informational, operational and strategic retrieval skills.

Okello-Obura and Magara (2008); Quadri (2013); among others have affirmed that the low level of information retrieval skills among students has made the level of usage of media resources among students very low. Ajiboye et al. (2013) noted that despite the importance of the information retrieval skills for efficient utilization of media resources, the lack of this skill is more in the developing countries such as Nigeria. It is therefore important to provide an up-to-date study on the influence of learning styles and information retrieval skills on media resource utilization among students. Hence this study focuses on secondary school students in Oyo State, Nigeria.

**The objectives of the study are to:**
1. determine the level of media resource utilization among secondary school students in Oyo State, Nigeria;
2. examine the different learning styles among secondary school students in Oyo State, Nigeria;
3. ascertain the level of information retrieval skills among secondary school students in Oyo State, Nigeria;
4. establish the predictive potentials of learning styles and information retrieval skills on media resource utilisation among secondary school students in Oyo State, Nigeria;

**Research Questions**
1. The following research questions would be used to drive the study:
2. What is the level of media resource utilization among secondary school students in Oyo State, Nigeria?
3. What are the different learning styles among secondary school students in Oyo State, Nigeria?
4. What is the level of information retrieval skills among secondary school students in Oyo State, Nigeria?

**Hypotheses**
The following hypotheses would be subjected to test at 0.05 level of significance:
$H_{01}$: There is no significant influence of learning styles on media resource utilisation among secondary school students in Oyo State, Nigeria.
$H_{02}$: There is no significant influence of information retrieval skills on media resource

utilisation among secondary school students in Oyo State, Nigeria

H$_{03}$: There is no joint significant influence of learning styles and information retrieval skills on media resource utilisation among secondary school students in Oyo State, Nigeria.

**Methodology**

The survey research design of the correlational type while the population of the study comprises all secondary school students in public schools in Akinyele Local Government Area of Oyo state, Nigeria. Also, the study includes only the public school students. According to Ministry of Education, Oyo State (2017), there are 35 public secondary schools in Akinyele local government area, of Ibadan, Oyo State. A two stage sampling procedure was used to select the respondents of this study from the secondary schools in Akinyele local government area, in Oyo state, Nigeria. First, eight secondary schools were selected using systematic random technique from the total numbers of secondary school in Akinyele local government area, representing 20% of the total population. At the second stage, a sample size of 385 secondary school students was selected using the formula for an unknown population below

$n_0 = Z^2 \, pq \, / \, e^2$

$n_0$ is the sample size

$Z^2$ is the abscissa of the normal curve that cuts an area of $\alpha$ and is equals to 1.96

p is estimated proportion of an attribute that is present in the population and is equals to 0.5

q is 1-p

$e^2$ is equal to 0.05 which is the significant level used in the study.

$(1.96)^2 \times 0.5 \, (0.5) \, / \, 0.05^2 \quad = \quad 385$ students.

Therefore, the study would use 385 students from <u>Akinyele</u> local government area (See Table 3.1).

The major instrument used for for data collection is the questionnaire. The questionnaire was structured to meet the research objectives, questions and hypotheses of the study. It is divided into four major sections namely demographic characteristics of respondents, learning styles, information retrieval skills and media resources utiliation sections. The questionnaire is structured in a four likert scale of 1-4 which signify disagreed, strongly disagreed, agreed and strongly agreed from which respondents would be allowed to choose only one options from the four that applies to them in each construct as conceptualized in this study.

To ensure that the research instrument to be used for this study is valid, the instrument was subjected to face, content and construct validity by the researcher's supervisor. To ensure that the instrument is reliable, a reliability analysis was conducted using the Cronbach alpha analysis which gives result of 0.78 ($\alpha$ = 0.78). The method of data collection involves the researcher employing two other research assistants. These research assistants were taught on the subject matter of the study and how they would go about in administering the questionnaire. The method of data analysis includes the descriptive and inferential statistical analyses. For the descriptive statistics, the frequency and percentages were used to analyse the research questions while the

simple regression analysis, and ANOVA were used test the hypotheses at 0.05 level of significance.

**Interpretation of Results and Discussion of Findings**
Out of the 385 questionnaires taken to the field for administration, only 260 were returned with useful responses which signifies a 68.0% response rate.

**Descriptive Statistics of Students**
The demographic information of the respondents shows that Ajibode has the highest percent (15.0%) while Community Grammar School, Sasa has the lowest percent (approximately 5.8%). Also, the senior school students have the higher percentage (61.5%) with the junior student having a lower percent (38.5%). The male students were more (63.8%) than the female students (36.2%); and also, students who are higher than 16 years are more (56.5%) than those below 15 years.

**Research Question 1: What is the level of media resource utilisation among secondary school students in Oyo State, Nigeria?**
The information about media resource utilisation among secondary school students in Oyo State, Nigeria is presented in Table 1.

**Table 1a: Distribution of Media Resource Utilisation among Students**

| | | Frequency | Percent |
|---|---|---|---|
| Text books | No | 34 | 13.1 |
| | Yes | 206 | 79.2 |
| | Total | 240 | 92.3 |
| | Missing System | 20 | 7.7 |
| | Total | 260 | 100.0 |
| Novels | No | 70 | 26.9 |
| | Yes | 171 | 65.8 |
| | Total | 241 | 92.7 |
| | Missing System | 19 | 7.3 |
| Text | No | 7 | 2.7 |
| | Yes | 232 | 89.2 |
| | Total | 239 | 91.9 |
| | Missing System | 21 | 8.1 |
| | Total | 260 | 100.0 |
| Lectures/speeches | No | 135 | 51.9 |
| | Yes | 98 | 37.7 |
| | Total | 233 | 89.6 |
| | Missing System | 27 | 10.4 |
| | Total | 260 | 100.0 |
| Dance and human movement | No | 241 | 92.7 |
| | Yes | 0 | 0 |
| | Missing System | 19 | 7.3 |
| | Total | 260 | 100.0 |
| Plays and performances | No | 109 | 41.9 |
| | Yes | 112 | 43.1 |
| | Total | 221 | 85.0 |
| | Missing System | 39 | 15.0 |
| | Total | 260 | 100.0 |
| Graphics | No | 167 | 64.2 |
| | Yes | 79 | 30.4 |
| | Total | 246 | 94.6 |
| | Missing System | 14 | 5.4 |
| | otal | 260 | 100.0 |
| Objects | No | 222 | 85.4 |
| | Yes | 20 | 7.7 |
| | Total | 242 | 93.1 |
| | Missing System | 18 | 6.9 |
| | Total | 260 | 100.0 |
| Artefacts | No | 242 | 93.1 |
| | Yes | 0 | 0 |
| | Missing System | 18 | 6.9 |
| | Total | 260 | 100.0 |

The result in table 1a shows that Text (89%); text books (79%); and Novels (66%) were the most used traditional media resources among students. However, students also used lectures/speeches (38%) and objects (8%). Dance and human movement (0%) and artefacts (0%) were not used among students. The result for the modern media resources used is provided in table 1b.

**Table 1b: Modern resource used by students**

| | | Frequency | Percent |
|---|---|---|---|
| **Film and television** | No | 190 | 73.1 |
| | Yes | 38 | 14.6 |
| | Total | 228 | 87.7 |
| | Missing System | 32 | 12.3 |
| | Total | 260 | 100.0 |
| **Radio programs** | No | 154 | 59.2 |
| | Yes | 88 | 33.8 |
| | Total | 242 | 93.1 |
| | Missing System | 18 | 6.9 |
| | Total | 260 | 100.0 |
| **Digital media** | No | 150 | 57.7 |
| | Yes | 93 | 35.8 |
| | Total | 243 | 93.5 |
| | Missing System | 17 | 6.5 |
| | Total | 260 | 100.0 |
| **Audio** | No | 169 | 65.0 |
| | Yes | 70 | 26.9 |
| | Total | 239 | 91.9 |
| | Missing System | 21 | 8.1 |
| | Total | 260 | 100.0 |
| **Video** | No | 132 | 50.8 |
| | Yes | 110 | 42.3 |
| | Total | 242 | 93.1 |
| | Missing System | 18 | 6.9 |
| | Total | 260 | 100.0 |
| **News** | No | 122 | 46.9 |
| | Yes | 124 | 47.7 |
| | Total | 246 | 94.6 |
| | Missing System | 14 | 5.4 |
| | Total | 260 | 100.0 |
| **Internet** | No | 109 | 41.9 |
| | Yes | 134 | 51.5 |
| | Total | 243 | 93.5 |
| | Missing System | 17 | 6.5 |
| | Total | 260 | 100.0 |
| **Computer games** | No | 157 | 60.4 |
| | Yes | 49 | 18.8 |
| | Total | 206 | 79.2 |
| | Missing System | 54 | 20.8 |
| | Total | 260 | 100.0 |
| **Music** | No | 237 | 91.2 |
| | Yes | 0 | 0 |
| | Missing System | 23 | 8.8 |
| | Total | 260 | 100.0 |

The result in table 1b shows that modern media resources were used by students lesser than the traditional media resources. From the result, 52% used Internet; 47% used News; 42% used Video; 36% used Digital media; 34% used radio programs; 27% used

Audio; 19% used Computer games; 15% used film and television; while none used Music. This implies that the use of modern resources among students was considerably low when compared to the use of the traditional media resources. Also, table 2 shows the frequency of use of media resource utilisation among secondary students in Oyo State, Nigeria

**Table 2a: Purposes of the traditional Media resource Utilisation**

| | | Frequency | Percent |
|---|---|---|---|
| **Text books** | Personal development | 9 | 3.5 |
| | Exam/Text | 74 | 28.5 |
| | Assignments | 73 | 28.1 |
| | Social Purposes | 84 | 32.3 |
| | Missing System | 20 | 7.7 |
| | Total | 260 | 100.0 |
| **Novels** | Personal development | 26 | 10.0 |
| | Exam/Text | 43 | 16.5 |
| | Assignments | 78 | 30.0 |
| | Social Purposes | 85 | 32.7 |
| | Missing System | 28 | 10.8 |
| Total | | 260 | 100.0 |
| **Text** | Personal development | 5 | 1.9 |
| | Exam/Text | 99 | 38.1 |
| | Assignments | 22 | 8.5 |
| | Social Purposes | 112 | 43.1 |
| Missing | System | 22 | 8.5 |
| Total | | 260 | 100.0 |
| **Lectures/speeches** | Personal development | 12 | 4.6 |
| | Exam/Text | 100 | 38.5 |
| | Assignments | 28 | 10.8 |
| | Social Purposes | 97 | 37.3 |
| Missing | System | 23 | 8.8 |
| Total | | 260 | 100.0 |
| **Dance and human movement** | Personal development | 55 | 21.2 |
| | Exam/Text | 44 | 16.9 |
| | Assignments | 40 | 15.4 |
| | Social Purposes | 99 | 38.1 |
| Missing | System | 22 | 8.5 |
| Total | | 260 | 100.0 |
| **Plays andperformances** | Personal development | 15 | 5.8 |
| | Exam/Text | 69 | 26.5 |
| | Assignments | 45 | 17.3 |
| | Social Purposes | 109 | 41.9 |
| Missing | System | 22 | 8.5 |
| Total | | 260 | 100.0 |
| **Graphics** | Personal development | 16 | 6.2 |
| | Exam/Text | 100 | 38.5 |
| | Assignments | 41 | 15.8 |
| | Social Purposes | 80 | 30.8 |
| Missing | System | 23 | 8.8 |
| Total | | 260 | 100.0 |
| **Objects** | Personal development | 15 | 5.7 |
| | Exam/Text | 81 | 31.2 |
| | Assignments | 36 | 13.8 |
| | Social Purposes | 103 | 39.6 |
| Missing | System | 25 | 9.6 |
| Total | | 260 | 100.0 |
| **Artefacts** | Personal development | 17 | 6.5 |
| | Exam/Text | 78 | 30.0 |
| | Assignments | 32 | 12.3 |
| | Social Purposes | 110 | 42.3 |
| Missing | System | 23 | 8.8 |
| Total | | 260 | 100.0 |

The result in table 2b shows that Film and television was used for personal development (10%), exam/Text (27%), assignments (22%), and social purposes (33%). Radio programs was used for personal development (10%), exam/Text (34%), assignments (17%), and social purposes (32%). Digital media was used for personal development (5%), exam/Text (29%), assignments (25%), and social purposes (34%). Audio was used for personal development (4%), exam/Text (35%), assignments (8%), and social purposes (45%). News was used for personal development (6%), exam/Text (40%), assignments (16%), and social purposes (30%). Video was used for personal development (4%), exam/Text (29%), assignments (9%), and social purposes (50%). Internet was used for personal development (4%), exam/Text (38%), assignments (11%), and social purposes (37%). Computer games was used for personal development (4%), exam/Text (40%), assignments (14%), and social purposes (34%). Music was used for personal development (3%), exam/Text (32%), assignments (17%), and social purposes (40%). This implies that the modern media resources were used mostly for social purposes and exam/text.

**Research Question 2: What are the different learning styles among secondary school students in Oyo State, Nigeria?**
The study presented six different types of learning styles, hence the responses to research question two would be distributed and divided into six with respect to the six learning styles.

The visual-spatial result shows that 54% like to represent what was taught in drawing, 47% think in terms of physical space, 46% like jigsaw and puzzle games, 44% take pleasure in reading maps, and 33% are very aware of study environment. This implies that some of the students have the tendency of belonging to the visual-spatial learning style. The result further shows that 55% communicate well through body language, 40% like touching people when communicating, 38% take pleasure in making things happen, 33% take Keen interest in the sense of body awareness and 31% do not like to be static but like moving from one place to another. This implies that some of the students have the tendency to belong to the Bodily-Kinaesthetic learning style group. Also, 52% are found to be sensitive to sounds in study environment, 50% are distracted by sound when reading, 48% love music, and 47% are sensitivity to rhythm and sound. This implies that few of the students have the tendency to be in the Aural or auditory learning style group. Fifty-four percent of the respondents can understand Image symbols during lessons, 52% like asking questions even though they already know the answer, 50% prefer written explanations when taught, prefer spoken words been used to teach respectively. This implies that few of the students have the tendency to be in the verbal learning style group. On the other hand, 59% of the respondents do not like making decisions from abstract things, 56% like holding on a practical occurrence to remember what they are taught, 49% like to watch and observe others and develop surveillances about their own experience, 46% think about what they are taught often, and 42% like using theories to solve problems. This implies that few of the students have the tendency to be in the active & reflective learning style group. Further result on learning styles of students shows that 58% learn better in groups, 52% prefer learning

alone because they don't want to be distracted, 50% believe that impression without expression is worthless, 48% gain my energy and strength when learning, and 46% value communication with interaction the most. This implies that few of the students have the tendency to be in the sensing & intuitive learning style group. Finally, 63% were found to learn better in small incremental steps, 53% learn in large leaps, 48% learn gradually and step by step, 40% can learn better in a holistic way but would consider the detail later. This implies that few of the students have the tendency to be in the Sequential & global learning style group.

**Research Question 3: What is the level of information retrieval skills among secondary school students in Oyo State, Nigeria?**
The level of information retrieval skills among students was also investigated. The result was investigated under three indicators of information retrieval: information retrieval skills, operational retrieval skill, and strategic retrieval skill.

On the information retrieval skills, the result shows that 83% can find their way to whatever site they are to visit to get needed information, 77% find it difficult to use the information obtained from the search,72% can find their way out of any site they had earlier visited, 70% can evaluate the information I obtained to see if they are useful for them, 68% can select and use appropriate information for their needs, and 55% know what to input into the system to get the information needed. This implies that students in Akinyele local government area, Oyo have high information retrieval skills.

The result on the operational skills shows that 82% seem to have difficulty in knowing the key to press to type query into the system, 57% sometimes get into confusion on how to input queries through the computer system to get needed information, and 54% know what to do to use a network connection. This implies that the rate of students' operational retrieval skill is above average. Also, the result on the strategic retrieval skills shows that that 70% are able to use network sources on any computer system, 57% can obtain needed information from computer using any connection to any site, 53% can apply the information obtained to meet their purpose, and 40% can use different strategy to meet their information need during searching process. This implies that students' strategic retrieval skills are also above average.

**Hypotheses**
The following hypotheses would be subjected to test at 0.05 level of significance:

**$H_{01}$: There is no significant influence of learning styles on media resource utilisation among secondary school students in Oyo State, Nigeria.**
For hypothesis one, the adjusted R square was 0.078, and the independent variables in this hypothesis are sequential & global learning styles, aural or auditory, active & reflective, verbal, bodily-kinesthetic, visual-spatial, and sensing & intuitive, while the dependent variable is media resource utilization. The result of the regression analysis of the hypothesis is presented in 3.

**Table 3: Regression Analysis of Hypothesis one**

| Coefficients | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 105.225 | 6.286 | | 16.740 | .000 |
| | Visual-Spatial | .058 | .084 | .057 | .691 | .490 |
| | Bodily-Kinaesthetic | .292 | .095 | .241 | 3.079 | .002 |
| | Aural or auditory | -.178 | .086 | -.155 | -2.070 | .040 |
| | Verbal | -.199 | .096 | -.175 | -2.078 | .039 |
| | Active & reflective | -.164 | .080 | -.162 | -2.064 | .041 |
| | Sensing & intuitive | .116 | .102 | .100 | 1.129 | .260 |
| | Sequential & global learning styles | .025 | .090 | .022 | .274 | .785 |
| a. Dependent Variable: Media Resource Use | | | | | | |

The result in table 3 shows that bodily-kinaesthetic, aural or auditory, verbal and active & reflective are significantly affecting the media resource utilization among secondary students in Akinyele local government are, Oyo State, Nigeria ($p<0.05$). However, sensing & intuitive and sequential & global learning styles were not significant ($p>0.05$).

**$H_{02}$: There is no significant influence of information retrieval skills on media resource utilisation among secondary school students in Oyo State, Nigeria**
The adjusted R square is 0.041, and the variables in the equation are information, operational and strategic retrieval skills, while the dependent variable is media resource utilisation.
The result to hypothesis two is presented in table 4.

**Table 4: Regression Result for Hypothesis two**

| Coefficients | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 77.295 | 9.309 | | 8.303 | .000 |
| | Information Retrieval Skills | .486 | .328 | .118 | 1.481 | .141 |
| | Operational Retrieval Skills | 2.723 | 1.078 | .230 | 2.526 | .013 |
| | Strategic Retrieval Skills | -.346 | .832 | -.038 | -.416 | .678 |
| a. Dependent Variable: Media Resource Use | | | | | | |

The result in table 4 shows that only operational retrieval skill was found to be significant and affect media resource use among students ($p<0.05$), information and strategic retrieval skills were not significant ($p>0.05$).

**$H_{03}$: There is no joint significant influence of learning styles and information retrieval skills on media resource utilisation among secondary school students in Oyo State, Nigeria.**
The result to hypothesis three is presented in table 5 and the independent variables in the equation are learning styles and information retrieval skills, while the dependent

variable is media resource utilization among students. The result shows an adjusted R square of 0.037.

| ANOVA[b] | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 2047.465 | 2 | 1023.733 | 2.840 | .063[a] |
| | Residual | 33886.473 | 94 | 360.494 | | |
| | Total | 35933.938 | 96 | | | |
| a. Predictors: (Constant), Informationretrievalskills, Learningstyle | | | | | | |
| b. Dependent Variable: Media Resource Use | | | | | | |

The joint ANOVA result for hypothesis one in table 5 shows that students learning styles and their information retrieval skills do not have joint significant effect on their media resource utilization (p>0.05). This implies that when students learning style is combined with their information retrieval skills, it reduced their potential to use media resources.

**Discussion of findings**.
The traditional media resource such as text; text books; and novels were the most frequently used among students. Other traditional media resources used are lectures/speeches and objects. The modern media resources were used less among students and include the internet, video, digital media, radio programs, audio, computer games, film and television, among others. Also, the traditional media resources were more used by students for exam/text, assignments, and social purposes while the modern media resources were used mostly for social purposes and exam/text. This supports the findings of Adegbore (2011) that the purposes of utilization of media resources among students are much and includes assignments, personal reading development, enhancement of academic performance, among others. Also, the findings of this study bolstered the works of Togia and Tsigilis (2009); Tyner (2014) and Ji, Michaels and Waterman (2014) that media resources could provide many advantages to students which include flexibility in the storage of search results; allowing access to information resource without restrictions, breaking the limitation of time, reducing cost and sometimes location constraints, among others. This supports the work of Northern Territory Government (2017) that the use of media resources has been found to be of major significant in schools for the studentsThe findings also support the works of Gardner et al. (2008); Dilek-Kayaoglu (2008); Liyi (2011); Ayoo and Lubega (2014); Rioux (2014); among others that the use of media resources can have tremendous effect on students' efficiency, effectiveness, quality of performance and that this could also extend to the overall educational system of the nation hence affecting the educational standard and performance of the nation. Also, the findings of this study concur with the works of Ukachi (2015); Akpojotor (2016); and Madondo, Sithole and Chisita (2017) that media resources utilization has not been widely encouraging among students and are grossly underutilized for academic purposes in Nigeria.

Students have different learning styles and include visual-spatial, bodily-kinaesthetic, aural or auditory, **v**erbal, active & reflective, sensing & intuitive and sequential & global learning styles. Also, students have higher operational retrieval skills than

information retrieval skills and less of strategic retrieval skills. The findings of this study contrast the works of Okello-Obura and Magara (2008), Ajiboye et al. (2013) and Quadri (2013); among others that students possess a low level of information retrieval skills.

Also, students learning styles such as bodily-kinaesthetic, aural or auditory, verbal and active & reflective are significantly affect the media resource utilisation among secondary students in Akinyele local government are, Oyo State, Nigeria. However, students with sensing and intuitive and sequential and global learning styles do not have significant influence of media resource utilization. There is a joint effect of the learning styles on media resource utilization among secondary students. This implies that when students try to combine the seven learning styles, it has more influence on media resource utilization better than when students possess them separately. This finding buttress the works of Dickinson et al. (2004); Franzoni, Assar, Defude and Rojas (2008) and Balakrishnan and Lay (2015) that students' learning styles can have significant influence on the use of certain media resources for learning purposes among students. Also, this support the work of Hartley and Bendixen (2001); Greenhow, Robelia, and Hughes (2009); among others that the learning styles affect the use and importance of the media resources to the education system.

Operational retrieval skill was found to be significant and affect media resource use among students while information and strategic retrieval skills were not significant. There was a joint effect of information, operational and strategic retrieval skills on media resource utilization among students in Akinyele local government area, Oyo State, Nigeria. This implies that when students possess the three types of information retrieval skill, it has better impetus on their media resource use than when possessed separately. The findings of this study support the work of Margaret-Mary and Mabawonku (2013) and Owolabi et al. (2016) that there is a significant relationship between information retrieval skills and media resource use among students in Nigeria. This supports the work Baikady and Mudhol (2013) that the ability to find, retrieve, and synthesise information effectively is a major needed skill useful for positive and successful use of media resources among students such as secondary school students.

Also, when used with learning styles, only information retrieval skill is found to be significant and affect the media resource utilization among students while the learning styles of students was not significant. This supports the work of Madondo et al. (2017) that the lack of information retrieval skills and information literacy skills are important factors that affect the use of media resources. The different learning styles of students do not have significant influence on their information retrieval skills. Also, the different learning styles of students do not have joint significant influence on their information retrieval skills. This implies that students learning styles does not commensurate enough to affect their information retrieval skills. In the recent modern society, the findings of this study support the work of Lawson (2005) that information retrieval skills has become an important skill essential in a technology driven environment where students learning styles could influence their information retrieval skills.

However, the findings of this study does not concur with the works of Dickinson, Cogdell and Gavigan (2004) that learning styles have significant influence on the effective retrieving of information especially among students for academic purposes. In addition, this findings of the study contrast the works of Felder and Soloman (1993) and Shaaidi (2012) that students learning styles does have significant influence on the educational system of which the students' information retrieval skills is a major part.

## Summary and Conclusion

In summary, the findings of this study revealed that thevtraditional media resource such as text; text books; and novels were the most frequently used among students. Other traditional media resources used are lectures/speeches and objects. The modern media resources were used less among students and include the internet, video, digital media, radio programs, audio, computer games, film and television, among others. Also, the traditional media resources were more used by students for exam/Text, assignments, and social purposes while the modern media resources were used mostly for social purposes and exam/text. Students have different learning styles and include visual-spatial, bodily-kinaesthetic, aural or auditory, **v**erbal, active and reflective, sensing and intuitive and sequential and global learning styles. Also, students have higher operational retrieval skills than information retrieval skills and less of strategic retrieval skills. Also, students learning styles such as bodily-kinaesthetic, aural or auditory, verbal and active & reflective are significantly affect the media resource utilization among secondary students in Akinyele local government are, Oyo State, Nigeria. However, students with sensing and intuitive and sequential and global learning styles do not have significant influence of media resource utilisation. There is a joint effect of the learning styles on media resource utilization among secondary students. This implies that when students try to combine the seven learning styles, it has more influence on media resource utilization better than when students possess them separately. Operational retrieval skill was found to be significant and affect media resource use among students while information and strategic retrieval skills were not significant. There was a joint effect of information, operational and strategic retrieval skills on media resource utilization among students in Akinyele local government area, Oyo State, Nigeria. This implies that when students possess the three types of information retrieval skill, it has better impetus on their media resource use than when possessed separately. The different learning styles of students do not have significant influence on their information retrieval skills. Also, the different learning styles of students do not have joint significant influence on their information retrieval skills. This implies that students learning styles does not commensurate enough to affect their information retrieval skills.

## Recommendations

The following recommendations were put forth in line with findings from the study:

1. The schools should encourage teachers to teach students using different techniques that conforms to the different learning styles so as to enhance students learning styles.
2. Also, information retrieval techniques of students can be enhanced through various trainings and workshops for students by the school libraries.

3. Various media resources should be provided by the schools and the library and made available for easy accessibility. Also, students should be taught on how they could make good use of these media resources for their academic purpose and personal development.

4. Also, these various media resources should be utilized by teachers in class during class work and used for teaching so that students could learn of their usage and importance.

5. Teachers and the schools should advise students to use media resources by giving them assignments and class works that involves the use of these media resources.

6. Parents and guardians should also be encouraged to make available these media resources for their wards at homes so as to enhance students use at schools. This could involve parents subscribing to both traditional and media resources for their children to use.

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