

***Utilisation of Resources As Correlates of Undergraduates' Academic Achievement  
in Cataloguing and Classification in Library Schools in Southern Nigeria***

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**Abstract**

The study focused on utilisation of resources as correlates of undergraduates' academic achievement in cataloguing and classification in library schools in Southern Nigeria. Cataloguing and classification are still compulsory courses in library schools in Nigeria. Despite the importance of the courses in the library profession and schools, it was observed from library educators and students that there is apathy for the courses in the library schools. Some graduates in the library schools are not interested to work in the cataloguing section of the library. This may be as a result of non-provision or non-utilisation of basic resources in teaching and learning processes. Survey research design of correlational type was adopted in the study. Purposive sampling technique was used in the study to select all the 550 final year students and 18 lecturers teaching cataloguing and classification in library schools in Southern Nigeria. The research instruments that were used for data collection in this study are two questionnaires for students and lecturers, achievement test for students and observation schedule on availability of resources. Descriptive statistics, including frequencies, percentage, mean, and standard deviation was used to answer the research questions while Pearson's Product Moment Correlation coefficient was used to test the hypothesis. Results from the study among others revealed that: all the library schools in Southern Nigeria have basic cataloguing tools for learning while majority of the library schools have no cataloguing laboratory and laboratory instructor and assistant, and there was positive and significant relationship between resource utilisation and academic achievement of undergraduates in cataloguing in library schools in Southern Nigeria. The study recommends among others that the management of the schools should provide adequate and independent laboratory for cataloguing and classification in the library schools in Nigeria and employ cataloguing and classification instructors in the cataloguing laboratory.

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## Introduction

Organisation of resources is very important in the library for easy information access and retrieval. Systematic organisation of resources in the library is achieved through cataloguing and classification and other activities. The library catalogue is the end product of cataloguing. The catalogue may be in a variety of forms like card, book, microform and online. According to Edoka (2000), the need of the user or potential user of the library is of principal importance in producing the library catalogue. Taylor and Miller (2006) gave the following functions of a library catalogue to the users:

the functions of the library catalogue are to enable a person to find a book of which either the author, title and subject is known and to show what the library has by a given author, on a given subject and in a given kind of literature. It also functions to assist in the choice of a book as to the edition and its character (p.7).

Information resources have been organised from antiquity to date to facilitate access to and use of library resources. Ancient civilisation recorded lists of books onto tablets and libraries kept records of their holdings during the Middle Ages. Development of the printing press in the 15<sup>th</sup> Century made it easy for the creation of bibliography arranged in chronological order with an alphabetical author index by Konrad Gesner (Taylor and Miller, 2006). According to Hunter and Bakewell (1991), there were some attempts at systematisation of cataloguing methods such as the cataloguing rules of Conrad Gesner (1548), Florianus Treflerus (1560), Andrew Maunsell (1595) and John Durie (1650). It was further revealed by Hunter and Bakewell that Maunsell, a London bookseller, introduced entry under surname, entry of anonymous works under title or subject or both. The first national cataloguing code was put in place by France government after the French Revolution in the 18<sup>th</sup> Century.

Despite the importance of cataloguing in librarianship, it was observed that many undergraduates continue to record poor academic achievement in cataloguing courses in library schools. This could likely be due to resource utilisation, teaching methods, time allocation and attitude of undergraduates in library schools in Southern Nigeria. Resources are very important in teaching and learning processes. Farombi (2001) defines resources as the sum total of everything that goes into any given educational system. The author classified resources into financial, human, material and instructional time resource. In a related development, Adeogun and Osifila (2011) classified educational resources into human, material, physical and financial. The resources under this study consist of human, material and physical facilities. The human resource in cataloguing and classification consists of lecturers and laboratory instructors. Lecturers and cataloguing laboratory instructors are very important in facilitating teaching and learning process in the library school. Farombi (2001), citing Manson (1981) stated that the quality of teachers is an important input in effective learning since quality output demands quality input. Both teachers and laboratory instructors are very germane in achieving high academic achievement of undergraduates in educational institutions.

Material resource needed for teaching and learning cataloguing and classification include textbooks and cataloguing tools. These materials are needed to enhance teaching and learning of the courses. Adeogun and Osifila (2011) assert that, the availability of educational resources is very important because of their role in the achievement of educational objectives and goals. Teaching and learning effectiveness and achieving the required learning outcome must be balanced with adequate resources in any educational set up. Resources provided for teaching and learning in any subject or course must be available and be made use of. Lecturers are expected to provide reading lists of textbooks relevant to the courses being taught.

Physical facility in this study consists of cataloguing laboratory and computer laboratory. Owoeye and Yara (2011) described laboratory as a room or building specially built for teaching by demonstration of phenomenon into practical terms. Cataloguing laboratory is an essential physical resource that should be provided for demonstrating theories learnt in teaching and learning cataloguing and classification in the classroom. According to Aina (2007), cataloguing and classification tools must be made available to students for practice on a regular basis in the indexing/cataloguing laboratory. In support of Aina's assertion, opportunity should be given to the students to practice regularly with cataloguing and classification tools in the cataloguing laboratory. Since cataloguing and classification are practical courses, students should be given the opportunity to make use of the tools in the laboratory on a regular basis to enable them to make use of the tools which may enhance their academic achievement. Furthermore, Adesoji (2008) citing Farounbi (1998) stated that students tend to understand and recall what they see more than what they hear as a result of using laboratories in the teaching and learning of science. Therefore, provision and utilisation of cataloguing laboratory and tools may lead to high academic achievement of the undergraduates in cataloguing and classification courses in library schools.

### **Statement of the Problem**

The main problem of this study is poor academic achievement of undergraduates in cataloguing and classification in library and information science schools in Southern Nigeria. Systematic organisation of information resources in the library facilitates their access and use is achieved through cataloguing. Cataloguing and classification are core courses in librarianship in library schools in Nigeria. Despite the importance of the courses in the library schools, it was observed that many undergraduates are known to record poor academic achievement in cataloguing and classification in the library schools. Interaction with library educators and students revealed that undergraduates portrays cataloguing and classification as been difficult and were not able to have high score in courses. This is a major concern of the literature on cataloguing and classification education. It has been observed also that some undergraduates in the library schools in Nigeria each year fail to graduate because of poor performance in cataloguing and classification courses. This poor academic achievement of the undergraduates may be due to non-provision or non -utilisation of appropriate resources in the library school.

## **Objectives of the Study**

The specific objectives for the study are to:

- i. find out resources available for teaching and learning cataloguing and classification courses in library schools in Southern Nigeria;
- ii. find out the resources that are utilised in teaching and learning cataloguing and classification courses in library schools in Southern Nigeria;
- iii. ascertain the level of academic achievement of undergraduates in cataloguing and classification in library schools in Southern Nigeria;

## **Research Questions**

The following research questions were answered in the study:

1. What are the resources available for teaching and learning cataloguing and classification courses in library schools in Southern Nigeria?
2. Which resources are highly utilised in teaching and learning cataloguing and classification in library schools in Southern Nigeria?
3. What is the level of academic achievement of undergraduates in cataloguing and classification in library schools in Southern Nigeria?

## **Hypothesis**

This null hypothesis was tested in the study at 0.05 level of significance:

**HO1** There is no significant relationship between resource utilisation and academic achievement of undergraduates in cataloguing and classification

## **Review of related Literature**

Resources are subdivided into three in this study namely human, material and physical facility. Human resources are unique educational input necessary for the development of skill acquisition and literacy of the students (Ekundayo and Alonge, 2012). In cataloguing and classification education in library schools lecturers/teachers and cataloguing instructor/assistant are needed in imparting relevant knowledge on students when teaching and assisting students to use the laboratory and equipment/tools in understanding the theories learnt in the classroom through practical experiences respectively. The success of any organisation is a resultant effect of quantity and quality of its workforce (Adegbemile, 2011).

Teachers have been revealed as very important in teaching and learning processes. What then is the correlation between the use of a qualified teacher and students' academic achievement? Akiri and Ugborugbo (2009) discovered that effective teachers produced better performing students. Similarly, Ugbe and Agim (2009) found that there is a significant relationship between teachers' competence and students' academic performance in Chemistry. Chemistry students taught by qualified teachers performed significantly better than those taught by unqualified teachers. Ugbe and Agim further stated that chemistry students taught by experienced teachers

performed significantly better than those by inexperienced teachers. In a related development, Adegbemile (2011) discovered that there is a significant relationship between teachers' quality and students' academic performance. Aiyelabegan (2012) found that students taught by qualified and experienced Physics teachers performed better than those taught by less qualified teachers. Similarly, Kola (2012), citing Apata (2007) stated that students taught by qualified and experienced teachers performed better than students taught by unqualified and inexperienced teachers. Teachers are therefore supposed to be professionally/academically qualified and have years of teaching experience to enable their students performed well during examinations. Furthermore, information resource instructor if employed in a well-furnished laboratory may significantly affect the academic achievement of undergraduates in cataloguing courses. Ekundayo and Alonge (2012) asserted that studies on the relationship between human resources and academic achievement have shown that human resources enhance academic achievement of undergraduates.

Material resources are very important in the teaching and learning process. The most important area in educational resource materials provision is in textbook production. Textbooks play a major role in the process of improving the overall effectiveness of an education system (Bojuwoye, 1992). Textbook is a very good source that students will resort to after the teacher's might have imparted the required knowledge. Owwoye and Yara (2011) citing Altbach (1983) averred that, nothing has ever replaced the printed word as the key element in educational process and, as a result, textbooks are central to schooling at all levels. Dahar and Faize (2011) opined that textbook is the nucleus of all the learning activities related to a particular curriculum. Dahar and Faize listed why textbook is important in teaching and learning process as follows: teacher is not a sufficient source of knowledge for reasons such as large class and time factor etc; student has to improve the knowledge received from teacher by reading the textbook; textbook plays a vital role in imparting knowledge to the students in the third world countries; and there is no choice other than textbook in many developing countries.

Another important information resource needed for effective teaching and learning cataloguing and classification in library and information schools is cataloguing and classification tools. A cataloguer requires certain tools before a bibliographic record of a document can be prepared (Aina, 2004). Library schools are expected to make all the various cataloguing and classification tools available and utilised by students. Igbeka inadvertently did not mention Anglo American Cataloguing Rules 2 (AACR2) which is a very important cataloguing tool in the library. In addition, Aina (2004) listed the tools as Anglo American Rules 2, Subject headings list (Library of Congress Subject Headings, Sears List of Subject Headings or a Thesaurus), Classification schemes (Dewey Decimal Classification, Library of Congress Classification etc), Cutter Tables, Filing Rules (ALA Filing Rules), Authority files and Reference books (gazetteer, atlases, encyclopaedia and dictionaries). These tools are important in teaching and learning cataloguing and classification.

Library and information schools are expected to provide them in this 21<sup>st</sup> Century in order to balance theory with practical. Cataloguing tools represent the laboratory equipment in library schools. Inadequacy or lack of facilities hinders students' exposure to practical skills; materials, tools and standard laboratory are lacking in our schools, hence poor teaching and learning process (Etuk, 2011). Etuk's assertion is

correct because, non-provision and utilisation of cataloguing tools may lead to poor teaching and learning process in library and information schools. Students are expected to turn the theories and principles learnt in the classroom into practice and where they are not available or used in the laboratory, students may not be able to apply the theories and principles.

On the relationship between information resources and academic achievement, Owoeye and Yara (2011) found that a textbook is an important tool for academic achievement. In assessing the relationship between the provision/utilisation of textbooks and academic achievement of students, Dahar and Faize (2011) discovered that there is a significant correlation between the use of textbooks and the academic performance of both Arts and Science students in Punjab (Pakistan). In the study of secondary schools students' performance in Mathematics from Zimbabwe by Wadesango and Dhliwayo (2012), it was discovered that 10 (100%) of the teachers indicated that textbook availability enhances pupils' performance. The implication is that if teachers and pupils have an adequate supply of textbooks, there is likely to be an improvement in students' achievement in Mathematics. Furthermore, Wadesango and Dhliwayo (2012) citing Lance (2002) stated that, availability of textbooks is one of the most important factors that influence academic achievement. It is worthy of note that textbooks should not only be available but must be utilised by students before any meaningful changes could be achieved in their academic achievement. If textbooks on cataloguing are available and undergraduates refuse to utilise them, it may have adverse effect on their academic achievement in library schools.

In her study titled "Effect of Availability and Utilization of Physics Laboratory Equipment on Students' Academic Achievement in Secondary Physics", Bello (2012) established that there is significant relationship between the utilization of Physics laboratory equipment and academic achievements of students in Physics, which revealed that utilisation of Physics laboratory equipment, have influence on the academic achievements of students' in Physics. On the effect of laboratory equipment on students' performance, Dahar and Faize (2011) found that the relationship of the availability of most of the science laboratory equipment, apparatus or material and chemicals with academic achievement of students in Punjab (Pakistan) is positively significant. Also, the Stepwise Regression analysis indicates that mean of the availability of laboratory equipment, apparatus or material and chemicals has a significant impact. Availability and use of laboratory tools may affect the academic performance of students in cataloguing and classification courses.

Similarly, Jebson (2012) in his study discovered that there was a significant relationship between adequacies of Biology and Chemistry laboratory equipment and students' academic achievement in Biology and Chemistry. Furthermore, Macmillan and Manneseh (2012) discovered from their study that students exposed to practical Physics knowledge achieved higher than students who were not exposed to practical Physics knowledge. In bringing textbooks and cataloguing and classification tools together as instructional resources in library school, it may be concluded that provision and use of them may affect academic achievement of undergraduates in library schools. The various findings show that there is a significant relationship between utilisation of laboratory equipment and academic achievement of science students. It could be deduced from the findings that utilisation of cataloguing and

classification tools in the laboratory may significantly affect the achievement of undergraduates in library schools.

Another important resource in the teaching and learning of cataloguing in any educational institution is physical facility. Laboratory is one of the physical facilities require for teaching and learning subjects or courses that require practical demonstration. Laboratory is a room or building used for scientific research, experiments, testing etc (Oxford Advanced Learner's Dictionary of Current English, 2006). Laboratory is mostly used in teaching and learning science subjects. Laboratory work is indispensable to the understanding of science (Dan-Ologe and Shittu, 2012). In teaching and learning cataloguing and classification courses, laboratory is being used. According to Mohammed (2008) there is no doubt that the library and information professionals need to be practical in orientation and actions, there is the need for relevant laboratories in library and information science (LIS) schools. Cataloguing and classification courses require laboratory where cataloguing tools are kept and used. Dan-Ologe and Shittu (2012) citing Reid and Shah (2004) gave the following general importance of laboratory: supporting or strengthening theoretical knowledge; experiencing the pleasure of discovery and development of their psychomotor skills; increasing creative thinking skills; developing manual dexterity by using tools and equipment; and allowing students to apply skills instead of memorising.

The general importance of laboratory can be applied to students using cataloguing laboratory in library schools. It is therefore an important resource in undergraduates learning cataloguing in library schools. Haider (2006) discovered that there was poor laboratory facility in terms of equipment in the teaching of cataloguing and classification in Pakistani library schools. Poor facility in term of cataloguing tools may lead to students' not being able to use the tools and at the end may lead to low academic performance in the course. In the Department of Library and Information Science, University of Karachi, there is a separate cataloguing and classification laboratory. According to the University of Karachi (2006), the laboratory is equipped with latest editions of Dewey Decimal Classification Scheme, Library of Congress Classification Scheme, Library of Congress Subject Heading List and Sears List of Subject Heading List. An ideal cataloguing and classification laboratory was found in the University of Karachi library and information school. Library schools should therefore emulate this good development which may enhances high academic achievement in cataloguing courses.

In addition to cataloguing and classification laboratory, another important physical facility needed for teaching and learning cataloguing in library school is computer laboratory. Recent changes in the curricula have been the adjustment and integration of courses, the application of computer technology, the update of course contents, and the improvement of teaching methods in cataloguing and classification education of Chinese Library Schools (Ma, 2005).

There are various studies that support the use of laboratory resulting into high academic achievement of students. Adesoji and Olatunbosun (2008) found that a well-equipped laboratory can positively change teachers' attitude to Chemistry teaching, which will in turn enhance students learning outcomes in Chemistry. In the area of students' achievement in Mathematics, Odigwe (2011) stated that, there are

indications from personal observations that students exposed to the use of Mathematics laboratory performed better than those students, who were taught without the use of Mathematics laboratory. In defending her submission Odigwe reasoned that, this could be due to the fact that teaching mathematics by making the students to conduct practical work to investigate theorems assisted them in understanding the concepts better. On the relationship between the use of ICT and students' academic achievement, Arinze, Okonkwo and Iwunor (2012) revealed that ICT raises the interest and performance of students in Social Studies. The use of cataloguing laboratory and ICT by undergraduates may likewise enable them to have high academic achievement in library schools.

On the relationship between resources utilisation and academic achievement, Okemakinde, Adedeji and Ssempebwa (2008) found that there was significant relationship between the utilisation of resources allocated to the technical colleges and their academic achievement. From available literature available to the researcher, there is no study on the relationship between resources utilisation and academic achievement of undergraduates' in cataloguing in library schools in Nigeria, it is therefore imperative to fill the gap in this study.

## **Methodology**

The descriptive research design of the correlational type was used in the study. The study is correlational because it aims at discovering the relationship between the variables under study. The population of the study consists of all final year students and lecturers teaching cataloguing in library schools in Southern Nigeria. Southern Nigeria consists of three geopolitical zones: South-East, South-South and South-West. The study population of the students and lecturers were 550 and 18 respectively. The study adopted purposive sampling technique to select all 400 level undergraduates and lecturers teaching cataloguing and classification in library schools in Southern Nigeria. The 400 level students were selected because of their level of exposure to cataloguing and classification courses, having offered them for, at least two years previously. The lecturers were selected because they are in vantage position to provide information on the resources used for teaching cataloguing. The research instruments that were used for data collection in this study are two questionnaires for students and lecturers, achievement test for students and observation schedule on availability of resources.

The content validity of the instruments was established by a critical review by experts comprising three lecturers in the Faculty of Education and the Chief Cataloguer of Kenneth Dike Library, University of Ibadan. The suggestions from these scholars on clarity, relevance and specificity were included into the questionnaire and achievement test. The instruments were pre-tested to ensure their reliability. The 400 level students in the Department of Library and Information Science, University of Ilorin, Ilorin were used to test the reliability of the instruments. This university is not part of the universities selected for the study. The instruments on availability and use of resources, and cataloguing and classification achievement test were analysed using the Cronbach alpha. The Cronbach alpha reliability coefficient revealed the following reliability levels: Availability of Resources Scale 0.71, Students' Use of Resource Scale 0.91; Students' Achievement Test in Cataloguing 0.63; Lecturers' Resource Utilisation Scale 0.81. These values that were obtained made the instruments to be



considered reliable. The data collected were analysed using the Statistical Package for Social Science (SPSS). Descriptive statistics, including frequencies, percentage, mean, and standard deviation were used to answer the research questions while inferential statistics such as Pearson's Product Moment Correlation coefficient was used to test the hypothesis.

## RESULTS OF THE STUDY

### Questionnaire Administration and Response Rate

Response rates to the two research questionnaires (one for undergraduates and the other for the lecturers) are presented in Tables 1 and 2 respectively.

**Table 1: Undergraduates' Questionnaire Distribution and Response Rate**

S/N	Name of Library School	No Administered	No Returned	No Valid	Percent
1	Abia State University, Uturu	41	28	28	68.3
2	Delta State University, Abraka	152	121	121	79.6
3	Enugu State University of Science and Technology, Agbani, Enugu	20	11	11	55
4	Imo State University, Owerri	79	43	43	54.4
5	Nnamdi Azikiwe University, Akwa	45	38	38	84.4
6	Tai Solarin University of Education, Ijebu-Ode	83	49	49	59
7	University of Ibadan, Ibadan	60	51	51	83.3
8	University of Nigeria Nsukka	43	35	35	81.4
9	University of Uyo	275	21	21	74.1
	Total	550	397	397	72.0

Table 1 shows that out of 550 questionnaire administered to the undergraduates in library schools in Southern Nigeria, 397 (72.2%) were returned and found usable for analysis.

**Table 2: Lecturers' Questionnaire Distribution and Response Rate**

S/N	Name of Library School	No Administered	No Returned	No Valid	Percent
1	Abia State University, Uturu.	3	2	2	66.7
2	Delta State University, Abraka.	2	2	2	100
3	Enugu State University of Science and Technology, Agbani, Enugu.	2	1	1	50.0
4	Imo State University, Owerri.	2	2	2	100.0
5	Nnamdi Azikiwe University, Awka.	1	1	1	100.0
6	Tai Solarin University of Education, Ijebu-Ode.	3	2	2	66.7
7	University of Ibadan, Ibadan.	3	3	3	100.0
8	University of Nigeria, Nsukka.	1	1	1	100.0
9	University of Uyo, Uyo.	1	1	1	100.0
	Total	18	15	15	83.3

Table 2 shows that out of 18 copies of the questionnaire administered to the lecturers teaching cataloguing in library schools in Southern Nigeria, 15(83.3%) were retrieved and found usable for the analysis.

### **Demographic information of Respondents**

This section focused on the demographic information of the respondents. Table 3 is the gender distribution of the undergraduates in library schools in Southern Nigeria.

**Table 3: Gender Distribution of Undergraduates**

Gender	Frequency	Percentage
Male	140	35.3
Female	257	64.7
Total	397	100.0

Table 3 revealed that 257 (64.7%) of the undergraduates respondents' are female while 140 (35.3%) are male. The study showed that majority of the respondents is female. Table 4 consists of rank, highest qualification, certificate in education and years of work experience of lecturers in library schools in Southern Nigeria.

Table 4 presents ranks, highest qualification, certificate in education and years of work experience of lecturers in library schools in Southern Nigeria.

**Table 4: Demographic Variables of the Lecturers Teaching Cataloguing**

	Items	Frequency	Percentage
Rank	Assistant Lecturer	1	6.7
	Lecturer II	1	6.7
	Lecturer I	3	20.0
	Senior Lecturer	5	33.3
	Reader	3	20.0
	Professor	2	13.3
		15	100.0
Highest Qualification	MLS/MLIS	4	26.7
	MSC Inf Sc	2	13.3
	Ph.D	9	60.0
		15	100.0
Certificate in Education	None	8	53.3
	NCE	1	6.7
	BED	5	33.3
	MED	1	6.7
		15	100.0
Years of Work Experience	0-5	1	6.7
	6-10	1	6.7
	11-15	4	26.7
	16-20	5	33.3
	Above 20	4	26.7
		15	100.0

Table 4 presents ranks, highest educational qualification, certificate in education and years of work experience of lecturers teaching cataloguing in library schools in Southern Nigeria. The highest group of respondents was the senior lecturer cadre 5 (33.3%) while, the least group was an assistant lecturer 1 (6.7) and lecturer II (6.7%) cadres. Lecturers who hold the Ph.D 9(60.0%) were in the majority. Majority of the lecturers 8 (53.3%) did not have any certificate in education. Teaching qualification is very important in teaching and learning processes. National Universities Commission and Teachers' Registration Council of Nigeria emphasise the need for teachers to have teaching qualification in all the levels of education in Nigeria in order for teachers to know and use various teaching methods in improving learners' response to teaching. Findings reveal that, majority of the lecturers teaching cataloguing in library schools 14 (93.3%) had six (6) years and above, work experience. The implication of this is that, lecturers teaching cataloguing in library schools have reasonable years of teaching experience though most of them were not pedagogically trained.

**Research Question 1:** Which resources are available for teaching and learning cataloguing and classification courses in library schools in Southern Nigeria

**Table 5: Available Resources for Learning Cataloguing**

S/N	Items	Not Available	Available
1	Lecturers.	25 6.3%	372 93.7%
2	Cataloguing and Classification Laboratory Instructor.	149 37.5%	248 62.5%
3	Cataloguing and Classification Laboratory.	156 39.3%	241 60.7%
4	Computer Laboratory.	113 28.5%	284 71.5%
5	Anglo American Cataloguing Rule2.	84 21.2%	313 78.8%
6	Library of Congress Subject Headings.	68 17.1%	329 82.9%
7	Sears List of Subject Headings.	87 21.9%	310 78.1%
8	Dewey Decimal Classification Scheme.	106 26.7%	291 73.3%
9	Library of Congress Classification Scheme.	84 21.2%	313 78.8%
10	MARC 21 Coding Standard.	186 46.9%	211 53.1%
11	Cutter Table.	127 32.0%	270 68.0%
12	Resource Description and Access.	164 41.3%	233 58.7%
13	Library of Congress CD-MARC.	180 45.3%	217 54.7%
14	Library of Congress Union Catalogue (NUC).	169 42.6%	228 57.4%
15	ALA Filing Rules.	87 21.9%	310 78.1%
16	Cataloguing and Classification Textbooks.	69 17.4%	328 82.6%

Table 5 revealed that majority of the students stated that all the sixteen (16) listed resources were available in their library schools. The highest number of resources available for learning cataloguing are lecturers 372 (93.7%), Library of Congress Subject Headings 329 (82.9%) and Cataloguing and classification textbooks 328(82.6%). Also, the study revealed that over 40% of students stated that MARC 21 coding standard 186 (46.9%), CD-MARC 180 (45.3%), LC Union Catalogue 169 (42.6%) and Resource Description and Access (RDA)164 (41.3%) were not available

in their library schools. The implication is that students would not be able to make use of these resources since they were not available.

**Table 6: Lecturer's Response on Availability of Human and Physical Resources in the Library School**

S/N	Items	Yes	No
1.	Cataloguing laboratory instructor/assistant is available in the library school.	10(66.7)	5(33.3)
2.	Cataloguing laboratory is available in the library school.	12(80.0)	3(20.0)
3.	Computer laboratory is available in the library school.	12(80.0)	3(20.0)

Table 6 shows that, majority of the respondents indicated that, cataloguing laboratory assistant 10 (66.7%), cataloguing laboratory 12 (80.0%) and computer laboratory 12 (80.0%) were available in their library schools.

The lecturers' response on the availability of cataloguing tools is presented in Table 7.

**Table 7: Availability of Cataloguing Tools in the Library School**

Item	Available	Not Available
Anglo American Cataloguing Rules 2.	15 (100.0)	-
Sears List of Subject Headings.	15 (100.0)	-
Library of Congress Subject Headings.	15 (100.0)	-
Dewey Decimal Classification Scheme.	15 (100.0)	-
Library of Congress Classification Scheme.	13 (86.7)	2 (13.3)
MARC 21 Coding Standard.	1 (6.7)	14 (93.3)
Cutter Table.	12 (80.0)	3 (20.0)
Resource Description and Access.	1 (6.7)	14 (93.3)
Library of Congress CD-MARC.	4(26.7)	11 (73.3)
Library of Congress Union Catalogue.	4 (26.7)	11 (73.3)
ALA Filing Rules.	13 (86.7)	2 (13.3)

From Table 7, finding shows that, 15 (100.0%) respondents stated that Anglo American Cataloguing Rules 2, Sears List of Subject Headings, Library of Congress Subject Headings and Dewey Decimal Classification Scheme were available while 14 (93.3%) respondents indicated that MARC 21 Coding Standard 14 (93.3%), Resource Description and Access (RDA) 14 (93.3%), Library of Congress CD MARC 11 (73.3%) and Library of Congress Union Catalogue 11 (73.3%) were not available in their library schools.

**Research Question 2:** Which resources are highly utilised in teaching learning Cataloguing and classification in library schools in Southern Nigeria?

Table 8 discloses the rate of undergraduates' use of resources.

**Table 8: Rate of Undergraduates' Resources Utilisation**

S/N	Statements	Not Used	Occasionally. Used	Highly Used	Very Highly Used	Mean	S.D.
1	Lecturers	35 8.8%	40 10.1%	107 27.0%	215 54.2%	2.26	.96
2	Cataloguing and Classification Textbooks	69 17.4%	101 25.4%	97 24.4%	130 32.7%	1.73	1.10
3	Library of Congress Subject Headings	81 20.4%	112 28.2%	88 22.2%	116 29.2%	1.60	1.11
4	Anglo American Cataloguing Rule2	86 21.7%	105 26.4%	98 24.7%	108 27.2%	1.57	1.11
5	Library of Congress Classification Scheme	87 21.9%	114 28.7%	86 21.7%	110 27.7%	1.55	1.11
6	Sears List of Subject Headings	95 23.9%	99 24.9%	104 26.2%	99 24.9%	1.52	1.11
7	Dewey Decimal Classification Scheme	112 28.2%	103 25.9%	80 20.2%	102 25.7%	1.43	1.15
8	ALA Filing Rules	103 25.9%	116 29.2%	86 21.7%	92 23.2%	1.42	1.11
9	Cataloguing and Classification Laboratory Instructor	125 31.5%	92 23.2%	84 21.2%	96 24.2%	1.38	1.16
10	Cutter Table	121 30.5%	104 26.2%	79 19.9%	93 23.4%	1.36	1.15
11	Cataloguing and Classification Laboratory	135 34.0%	94 23.7%	86 21.7%	82 20.7%	1.29	1.14
12	MARC 21 Coding Standard	147 37.0%	86 21.7%	87 21.9%	77 19.4%	1.24	1.15
13	Computer Laboratory	149 37.5%	98 24.7%	63 15.9%	87 21.9%	1.22	1.17
14	Resource Description and Access	154 38.8%	87 21.9%	76 19.1%	80 20.2%	1.21	1.16
15	Library of Congress Union Catalogue(NUC)	153 38.5%	100 25.2%	66 16.6%	78 19.6%	1.17	1.14
16	Library of Congress CD-MARC	153 38.5%	97 24.4%	80 20.2%	67 16.9%	1.15	1.11

Table 8 revealed that majority of the undergraduates highly made use of lecturers  $\bar{X}$  =2.26, SD=.96 is one of the human resources, cataloguing and classification textbooks  $\bar{X}$ =1.76, SD=1.10 and Library of Congress Subject Headings  $\bar{X}$ =1.60, SD=1.11. The use of physical resources like cataloguing and classification laboratory  $\bar{X}$  = 1.29, SD=1.116 and computer laboratory  $\bar{X}$  =1.22, SD=1.17 were low. Furthermore, it was revealed that the rate of the use of one of the most popular classification schemes in Nigeria: the Dewey Decimal Classification Classification (DDC) Scheme  $\bar{X}$ =1.43, SD=1.15 was low.

The implication of the non-utilisation of physical resources by the majority of the undergraduates may be either due to their non-availability or the inadequate time to make use of them. Furthermore, low rate of the use of Dewey decimal classification scheme in the library schools by the undergraduates may affect their academic achievement if practical questions are drawn from the classification scheme during examination or test.

Table 9 presents the response of lecturers on the use of resources.

**Table 9: Lecturers' Use of Resources in Teaching Cataloguing**

S/N	Statements	Not Used	Occ. Used	Highly Used	Very Highly Used	Mean	S.D.
1	Library of Congress Classification Scheme.	2 13.3%	-	5 33.3%	8 53.3%	3.27	1.03
2	AACR2.	1 6.7%	2 13.3%	5 33.3%	7 46.7%	3.20	.94
3	Library of Congress Subject Headings.	1 6.7%	1 6.7%	7 46.7%	6 40.0%	3.20	.86
4	Sears List of Subject Headings.	1 6.7%	2 13.3%	6 40.0%	6 40.0%	3.13	.92
5	Dewey Decimal Classification Scheme.	1 6.7%	4 26.7%	4 26.7%	6 40.0%	3.00	1.00
6	Textbooks.	3 20.0%	2 13.3%	3 20.0%	7 46.7%	2.93	1.22
7	Filling rules.	2 13.3%	5 33.3%	5 33.3%	3 20.0%	2.60	.99
8	Library of Congress Union Catalogue (NUC).	8 53.3%	4 26.7%	3 20.0%	-	1.67	.82
9	Resource Description and Access.	13 86.7%	-	1 6.7%	1 6.7%	1.33	.90
10	Library of Congress CD-MARC.	12 80.0%	2 13.3%	-	1 6.7%	1.33	.82
11	MARC 21 Coding Standard.	12 80.0%	2 13.3%	1 6.7%	-	1.27	.59

Table 9 reveals that the highly used resources by lecturers' in teaching cataloguing in library schools were the Library of Congress Classification Scheme  $\bar{X}$  =3.27,

SD=1.03; the Anglo American Cataloguing Rules 2  $\bar{X}$  =3.20, SD=.94; the Library of Congress Subject Headings  $\bar{X}$  =3.20, SD=.86; the SearsList of Subject Headings  $\bar{X}$  =3.13, SD=.92 the Dewey Decimal Classification Scheme  $\bar{X}$  =3.00, SD=1.00; Textbooks  $\bar{X}$  =2.93, SD=1.22 and ALA Filing Rules  $\bar{X}$  =2.60, SD=.99. The use of these resources by lecturers would result into effective teaching of cataloguing in library schools.

**Research Question 3:** What is the level of academic achievement of undergraduates in cataloguing in library schools in Southern Nigeria?

The level of academic achievement of the undergraduates in the library schools is presented in Table 10

**Table 10: Academic Achievement of Undergraduates in Cataloguing**

Achievement	Frequency	Percentage
Low (0-19)	117	29.4
Average (20-34)	261	65.7
High (35 and above)	19	4.8
Total	397	100.0

Table 10 shows that majority of the respondents' academic achievement in cataloguing was average 261 (65.7%).

**Table 11: Relationship between Resource Utilisation and Academic Achievement of Undergraduates in Cataloguing**

Variable	N	Mean	Std. Dev.	Df	R	P	Remark
Resource Utilisation	397	23.1184	12.6833	395	.849**	.000	Sig.
Academic Achievement	397	23.8942	6.8279				

\* Sig. at 0.05 level

Table 11 reveals that correlation coefficient between resource utilisation and academic achievement of undergraduates in cataloguing was significant ( $r = .849^{**}$ ,  $N = 397$ ,  $P < 0.05$ ). This result implies that there is positive and strong relationship between resource utilisation and academic achievement of undergraduates in cataloguing. Therefore, the null hypothesis is rejected.

### **Results of the Observation on Availability of Resources**

The following were observed in the library schools during the study: availability of cataloguing laboratory, cataloguing tools, cataloguing assistant/instructor and computer laboratory in library schools in Southern Nigeria. The result of the observation is as follows:

Cataloguing laboratory was available at Nnamdi Azikiwe University, Akwa (NAU), Tai Solarin University of Education, Ijagun (TASUED), University of Nigeria



Nsukka (UNN) and University of Uyo (UNIUYO) library schools while there were no separate cataloguing laboratory in Abia State University, Uturu, Delta State University, Abraka (DELSU), Enugu State University of Science and Technology, Enugu (ESUT), Imo State University, Owerri (IMSU), and University of Ibadan (UI) library schools. In the University of Ibadan for example, there is a place designated as cataloguing laboratory many years ago but cataloguing tools were kept in the Departmental library from where they are taken to the laboratory whenever needed for practicals and returned thereafter.

There were basic cataloguing tools like Anglo American Cataloguing Rules 2, Library of Congress Subject Headings, Sears List of Subject Headings, Dewey Decimal Classification Scheme, Library of Congress Classification Scheme etc in NAU, UNN and UNIUYO cataloguing laboratory. Furthermore, there were basic cataloguing tools in ESUT, IMSU and UI departmental libraries. It was observed that IMSU called their departmental library cataloguing laboratory/departmental library. There are librarians in the departmental libraries of ESUT, IMSU and UI.

There was cataloguing laboratory instructor in NAU cataloguing laboratory while TASUED and UNIUYO maintained laboratory assistants. There was no cataloguing laboratory assistant in UNN library school. TASUED and UNN used their cataloguing laboratory as classroom as well. All the nine library schools except ESUT had computer laboratory.

### **Discussions of Findings**

The study found that all the library schools in Southern Nigeria have basic cataloguing tools. Cataloguing tools like Resource Description and Access (RDA) and MARC 21 coding standard were not available in most of the library schools. Although both the lecturers and undergraduates claimed availability of cataloguing laboratory instructor and cataloguing laboratory, through observation, it was revealed that majority of the library schools do not have cataloguing laboratory and cataloguing laboratory instructor and assistant. It was observed that library schools that do not have cataloguing laboratory kept their cataloguing tools in their departmental libraries. Departmental libraries are not good alternative to cataloguing laboratory. Students should be able to make use of the tools in the laboratory where they will be able to ask questions which may not be permissible in the departmental libraries. This study confirms Nwalo's (2005) discovery of the inhibitions to effective education and training of cataloguers in Nigeria among others as the dearth of resources in library schools.

Human and material resources utilised by majority of the undergraduates in learning cataloguing in library schools in Southern Nigeria were lecturers, textbooks, cataloguing tools like Anglo American Cataloguing Rules2, Library of Congress Subject Headings and Sears List of Subject Headings and textbooks. Cataloguing laboratory, computer laboratory, cataloguing laboratory instructor, Dewey Decimal Classification Scheme and Library of Congress Classification Scheme were being used by few undergraduates in learning cataloguing in library schools. Furthermore, majority of the lecturers made use of Library of Congress Classification Scheme, Anglo American Cataloguing Rules 2, Library of Congress Subject Headings, Sears List of Subject Headings, Dewey Decimal Classification Scheme textbooks and filing

rules in teaching undergraduates' cataloguing in library schools. Cataloguing laboratory, computer laboratory, laboratory instructor/assistant and Resource Description and Access (RDA) are essential resources which must be provided for teaching and learning in library schools.

These essential resources are not only to be provided, they are also expected to be utilised by students and lecturers for better academic achievement of undergraduates in library schools. In confirming the importance of laboratory in teaching and learning process, Adesoji and Olatunbosun (2008) found that a well-equipped laboratory can positively change teachers' attitude to Chemistry teaching, which will in turn enhance students' learning outcomes in Chemistry. Also, Etuk (2011) justified these that inadequacy or lack of facilities hinders students' exposure to practical skills, materials, tools and standard laboratory are lacking in our schools, hence, poor teaching and learning process. Furthermore, Odigwe (2011) found that from personal observations, students exposed to the use of Mathematics laboratory performed better than those students, who were taught without the use of Mathematics laboratory. Provision and use of laboratories should be paramount in the heart of library school authorities in achieving high academic achievement of undergraduates in cataloguing.

### **Summary of findings**

Three research questions and one null hypothesis were formulated for the study. The results of the study are as follows:

1. All the library schools in Southern Nigeria have basic cataloguing tools for learning while majority of the library schools have no cataloguing laboratory and laboratory instructor and assistant.
2. Resources being highly utilised by majority of the undergraduates' in learning cataloguing were lecturers, textbooks, Anglo American Cataloguing Rules 2 while lecturers highly made use of Library of Congress Classification Scheme, Anglo American Cataloguing Rules 2, Library of Congress Subject Headings and Sears' List of Subject Headings and Dewey Decimal Classification Scheme and textbooks in teaching cataloguing.
3. The study found that majority of undergraduates' achievement in cataloguing and classification was at average level.
4. There was positive and significant relationship between resource utilisation and academic achievement of undergraduates in cataloguing in library schools in Southern Nigeria.

### **Conclusion**

The study found that there was correlation between utilisation of resources and undergraduates' academic achievement in cataloguing and classification in library schools in Southern Nigeria. Utilisation of cataloguing and classification resources is therefore, a determinant of undergraduates' achievement in the cataloguing and classification courses. The implication of the study is that, undergraduate who made use of cataloguing and classification resources may perform well in cataloguing and classification courses while the undergraduate who refused to adequately make use of

the resources may have low academic achievement in cataloguing and classification courses in the library schools.

### **Recommendations**

Based on the findings of the study, the following recommendations are hereby made to improve the undergraduates' academic achievement in cataloguing and classification in library schools in Nigeria:

1. Since the study has identified a lacuna in the provision of cataloguing laboratories in the library schools, it is necessary for the management of the schools to provide adequate and independent laboratory for cataloguing and classification in library schools in Nigeria.
2. Library school management should employ laboratory instructors and assistants for more effective practical sessions. This is necessary to improve academic achievement of undergraduates in cataloguing.
3. In view of resources having correlation with academic achievement of the undergraduates in cataloguing, cataloguing and classification laboratory, computer laboratory and basic cataloguing and classification tools should be utilised by the undergraduates to improve their achievement in cataloguing and classification in library schools.

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