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ELECTRONIC INFORMATION RESOURCES USE, QUALITY REFERENCE SERVICE DELIVERY AND ACADEMIC PERFORMANCE OF FINAL YEAR STUDENTS IN COLLEGES OF EDUCATION IN LAGOS STATE, NIGERIA

By

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Abstract

The academic performance played an essential role in producing high-quality graduates who are to become high-quality human resource required for national, economic and social development. Electronic information resources use by students and quality reference service delivery can influence academic performance among students. It is on this premise that study investigates electronic information resources use, quality reference service delivery on academic performance of students in colleges of education in Lagos State, Nigeria. The survey design of descriptive type was adopted. Mixed methods of systematic and total enumeration sampling technique were used. A total of 309 final year students was used for the study. The questionnaire was used for data collection. Collected data were analysed using percentages, mean and standard and multiple regression. Female respondents (53.8%) within the age bracket of 22-24 years dominated the study. The level of quality of reference services delivered in the libraries were moderate ($\bar{x}=61.28$) and significant relationship was found to have existed between academic

performance and electronic information resources use ($r=.227$; $p<.05$) and quality reference service delivery ($r=.451$; $p<.05$). A significant joint contribution ($R=.491$; $F=46.761$; $p<.05$) was found to have existed between electronic information resources use, quality reference service delivery and academic performance and a significant relative contribution of electronic information resources use ($\beta =.194$; $p<.05$) and quality reference service delivery ($\beta =.436$; $p<.05$) towards students' academic performance respectively. Students' academic performance is predisposed to the provision, availability and accessibility of electronic information resources and effective reference service delivery in the schools' libraries. Now that the world has gone digital, academic libraries need to invest more in the training and provision of more e-resources to meet the information of all users. They should as a matter of policy enforce library orientation to its users for effective utilization of library resources.

Keywords: Electronic information resources, Quality reference services, Students' academic performance

Introduction

Colleges of education in Nigeria have played vital roles in our national development, especially in the education sector. The teaching function of colleges of education in Nigeria for instance, has contributed immensely to national development particularly in the development of middle-level manpower for the nation's primary and junior secondary schools (Oga and Okpara, 2019). They stressed further that colleges of education have produced a large number of non-graduate professional Nigeria Certificate in Education (NCE) teachers that teach in our primary and junior secondary schools over the years, thus, alleviating the low manpower problems of the nation at those levels. These teachers have also laid the foundation of whatever formal education that is received later in life by those in different professions such as the accountants, teachers, lawyers, economists, engineer, doctors, agriculturalists, architects and so on. The ideas that these people put into productive use has enhanced the nation's development. It can therefore be concluded that colleges of education have produced so many capable hands that have helped to push the frontiers of learning forward.

Education is one of the important areas where governments in both developed and developing economies should direct its resources. The belief is that the result from education expenditure will go a long way in transforming human, social, economic, cultural and other aspects of the people's lives. Odeleye (2012) explained that only recurrent expenditure has significant effects on economic growth as the academic qualifications of teachers also have significant impact on students' academic performance. The role education plays in national

development of any nation cannot be over-emphasised. It fastens the process of national development and also helps to develop good political ideology (Adetula, Adesina and Ojeka, 2012). Education is an all-round phenomenon that can make or mar the growth of any nation. A nation that underrates its educational system will end up below the ladder among the developed countries, as success in education is highly instrumental to the development of a nation.

Colleges of education students play major role in shaping the education and economy sphere of the state and the country at large. It is therefore imperative that these teachers in training portray good academic performance so that they can transfer their knowledge to the students they are teaching, thereby improving their student's academic performance. Academic performance in the colleges of education determines whether the students will proceed to university for higher degree or be able to secure a teaching job (Olufemioladebinu, Adediran, and Oyediran, 2018). Therefore, training of teachers is highly important as it make or mar the life of the students they taught since teachers has direct contact with these students. A half-baked teacher will definitely impact the students wrongly.

Academic performance according to Tobih (2012), is a process prescribed for testing qualification, an exercise designed to examine progress or knowledge. It refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. Hughes (2004) defined academic performance as the outcome of short or long-term educational goals that are achieved either by students, teachers or institutions. That is, how well a student meets with the standard set out by local authority or the institution itself. Academic performance is the ability to study and remember facts and being able to communicate knowledge verbally or down on paper. Cambridge University Reporter (2003) ascertained that, academic performance is commonly defined in terms of examination performance. Thus, it implies a process where a student's success in school is measured to determine how they stand up to others in the same areas after a test or examination.

Olufemioladebinu, Adediran, and Oyediran (2018) ascertained that poor performance in colleges of education spells doom for students whose life becomes uncertain and full of misery, since students' performance also determines quality of education that will be passed over to the students by potential teachers at primary and secondary school levels. They explained further that students' academic performance is affected by several factors which could include students' learning skills, parental background, peer influence, teachers' quality, learning infrastructure

among others. Teachers learning skills goes a long way in determining the academic performance of their students. Thus, if a teacher is not sound academically, it will in turn reflect in the performances of his students, this can be dangerous to the life of those students in future.

Ojo (2014) established that various dimensions of factors have significantly influenced student's academic performance. These variables include: insufficiency of trained teachers, inadequate instructional materials, lack of modern equipment for teaching, poor students' interest and attitude to learning, method of teaching and socio-economic status of the parents. Jayanthi et al, (2014), in his studies identified several factors that affect academic performance of students in various centres of learning. Some of these factors include class attendance, age, learning styles or preferences, gender, class size, entry qualifications and family income. Other factors includes some measures that are put in place by the institution to influence students' academic performance such as a well-equipped library amongst others which can positively influence students' academic performance. A library that is well equipped with both human and material resources can have a significant effect on the academic performance of students.

Government and stakeholders effort to improve academic performance of students in colleges of education according to Olufemioladebinu, Adediran, and Oyediran (2018) have led to series of interventions like scholarship, training of the lecturers, providing infrastructure, good health care support, extracurricular activities, provision of well-equipped and standard libraries among other. Among all these facilities, libraries hold a central role as it is the heart of any academic institution with the main aim of supporting the teaching and research needs. In particular, due to establishment in various literatures, the provision of electronic resources in colleges of education libraries can influence academic performance of students.

Dhanavandan and Tamizhchelvan (2012) cited in Sejane (2017) defined e-resources as resources which requires computer access or any electronic product that delivers a collection of data. This can be in text, referring to full-text bases, electronic journals, image collections, and other multi-media products and numerical, graphical or time based as a commercially available title that has been published with the aim to be marketed. These may also be delivered on Compact Disc-Read Only Memory (CD-ROM) on tape, via internet and so on. Sejane identified the most frequently encountered types of e-resources as electronic journals (e-journals); electronic books (e-books); electronic mail (e-mail); electronic images (e-images); full-text databases; electronic audio/visual resources; indexing and abstracting databases; reference

databases (biographies, directories, dictionaries, encyclopaedias, and so forth); numeric and statistical databases; and Online Public Access Catalogues (OPACs). In line with the above definitions, electronic information resources are those electronic resources that are subscribed to and made accessible to students through restricted gateways that can be logged in within the library with the use of a provided password.

Dadzie (2005) highlighted some of the advantages of electronic information resources as: access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents. Electronic information resources contain current information because they are updated frequently, they offer advanced search capabilities, they offer flexibility in the storage of the results, and they enable access to information without the restrictions of time and location. Evidence abounds on the encouraging contributions of electronic information resources to the academic performance of students in tertiary institutions. Assessment in action project by the Association of College and Research Libraries (2017) showed that students who made use of the library in some ways, for example, accessing online databases, interlibrary loan among others, achieved better grades than those who do not utilise the library. Kot and Jones (2015) in a study at Georgia State University, demonstrated that the utilisation of library information resources positively affects the academic performance of undergraduates. Another factor that influence academic performance among students in the quality of reference services delivered to students.

Quality reference services is measured based on user's satisfaction with the services provided, availability of reference tools relevant in the user's field of interest, availability of both traditional and electronic services tailored to capture and meet the needs of the users, library environment and by extension reference environment. Others are reference queries answered, reference query response time, assistance from the librarian, communication skills of the user and the reference librarian (Awodoyin and Aina, 2018). A library user should be warmly welcomed and be assured of the willingness of reference librarian to render the needed assistance. If users are satisfied with these services, it will motivate and promote the assurance/trust they have in the use of the library, thereby, encouraging them to patronize the library the more and see it as their second learning centre aside their classroom environment. Podbrežnik (2014) identified five dimensions used in measuring service quality (SERVQUAL)

developed by Parasuraman, zeithaml and Berry (1985). These are reliability, responsiveness, tangibility, empathy, and assurance. This represents users' evaluation of library services.

Literature review

On the other hand, academic performance is seen as the outcomes of any academic input (Division of Student Affairs, Obafemi Awolowo University, 2015). Such outcomes are not limited to excellent results obtained through test and examination scores alone but also include the learning achievements of students at the end of an academic program. Thus, academic performance is well-defined as the degree to which students achieve educational goals, objectives and outcomes. It is also seen as the ability to study and remember facts and being able to communicate knowledge verbally or down on paper.

Ali, Munir, Khan, and Ahmed, (2013) posits that academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environment, specifically in schools, colleges, and universities. In view of the foregoing views, academic performance should be considered to be a multi-faceted construct that comprises different domains of learning. Because the field of academic achievement is very wide-ranging and covers a broad variety of educational outcomes, the definition of academic performance depends on the indicators used to measure it. Also, Yousuf, Sarwar and Ranjha, (2011) sees academic performance as the extent to which a student, teacher, or institution, has achieved their short or long-term educational goals. In the author's further view, academic performance can be commonly measured or ascertained through examinations or continuous assessments, hence cumulative grade point average (CGPA) and completion of educational degrees such as high school and bachelor's degrees represent academic achievements. The author concludes that there is no general agreement on how best to evaluate academic performance or which aspects are more important.

Among the many criteria that indicate academic performance, there are very general indicators which are: procedural knowledge such as skills; and declarative knowledge such as facts acquired in an educational system; more curricular based criteria such as grades or performances on an educational achievement test; and cumulative indicators and certificates. All that these criteria have in common is that they present intellectual endeavours and thus, more or less mirror the intellectual capacity of a person.

Similarly, academic performance is seen as the performance of the students in the subject they study in the school Pandey (2008). It determines the student's status in the class that gives students an opportunity to develop their talents, improve their grades and prepare for the future academic challenges. Academic performance is a means of evaluating the academic standing of students in a given educational pursuit in an institution, and thus, the concept of measurement of academic performance of students is inevitable in a formal education setting. It involves the Grade Point Average (GPA). The GPA is the average grades, including assignments, projects, quizzes and examination marks (Twum, 2014). Richardson, Abraham and Bond (2012) observed that GPA is the most studied measure of academic performance of students while Olatunji, Aghimien and Oke (2016) are of the opinion that Cumulative Grade Point Average and Continuous Assessment and Examination are the best means of measuring student success. However, several studies had been generated by some scholars, where numerous factors which had significant effects on students' academic performance in various institutions and centres of learning were identified and analysed.

Olufemioladebinu, Adediran, and Oyediran (2018) researched on determining the factors influencing student's academic achievement in Nigerian Colleges of Education. Four hundred and eighty students from six Colleges of Education were randomly selected for this study while their CGPA was collected from the departmental office. Results showed that student's socio-economic characteristics, parental background and home-related issues, adequacy and functionalities of school facilities, students' reading habits and teachers' effectiveness, all had a significant relationship with students' academic achievement. It was reported that a student educational success rely heavily on social status of students' parents/guardians in the society. Considine and Zappala, (2002) supported the statement by asserting that Parent's income or social status positively affects the student performance in an examination. This was explained further that those children that are from the families that have low income make known more subsequent models in terms of learning outcomes; low literacy level, low retention rate, problems in school behaviour and more difficulty in their studies and mostly display negative attitude towards studies and school.

Olatunji, Aghimien and Oke (2016) assess the factors affecting performance of undergraduate students in construction related discipline in Nigeria. A survey design was employed with questionnaires administered on students in the department of Quantity Surveying,

Estate Management, Architecture and Industrial Design in Federal University of Technology Akure, Nigeria. The study revealed that parents and lecturers have the highest influence on the success of undergraduate students in construction related disciplines in Nigerian while school board members have the lesser impact. Concentration, lack of reading habit and class size are the major identified factors affecting the performance of undergraduates.

Laird and Kuh (2005) used data generated by the National Survey of Students Engagement (NSSE) to examine the relationship between the use of information technology and other forms of students' engagements. They discovered that the interactions of students in information technology and activities that are related to the library, for instance, checking up academic information resources on the library's website or seeking for help from librarians among others, correlated positively and moderately with student engagement and performance. Collaborative learning was enhanced by the use of information technology by the students to work harder to meet up with their instructors' standards. Robinson and Schegl (2004) discovered a significant correlation between citation behaviour and marked scored in assignments but Wong and Webb (2011), however, noted that the relationship might not be due to the quality of the cited references but the number of citations.

Academic library plays a vital role in students learning experience by providing access to information resources. Hamade and Al-Yousef (2010) attested to this by examining the information resources use by LIS postgraduates at Kuwait University by the use of citation of references in their research papers. The findings revealed that journal articles, web pages and books are the most preferred information resources used by the students. Wong and Webb (2011) discovered significant associations between the number of books checked out of the library by students and their GPA at graduation but noticed that few studies had been carried out to measure the relationship between library use by students and their academic performance even though literature abound about its importance. According to Wong and Webb (2011), university and library administrators have stated the need for libraries to clearly demonstrate the "relationship between the nature of students' library use and their academic performance" by raising pertinent questions like, "do those (students) who actively use library collections and services perform better than their non-using peers?".

Due to this, rather than using the customary academic library assessment, Wong and Webb (2011) reported an experiment project undertaken by the Hongkong Baptist University

library (HKBU) to establish a statistical relationship between the use of library materials and the CGPA of undergraduates. The HKBU library demonstrated its positive impact on the learning outcomes of undergraduates by sampling data up to 8,701 pairs. A strong association was also discovered by Cox and Jatti (2012) between library information resources and student grades at the university of Wollongong library. The investigation was carried out by analysing resource usage data for book loans and online resources used by the undergraduates in the university using a database called “Library Cube” which was used to link library use, demographic and academic performance data of the undergraduates.

Okorie, Nwokocha and Ibenne (2018) investigated the influence of Electronic Information Resources utilization on academic performance of HND students in the Department of Library and Information Science of Federal Polytechnic Nekede, Owerri. The findings revealed that the HND students used Electronic Information Resources (EIR) daily for academic purposes such as helping them in completing their assignment and seminar papers. A greater number of the respondents attested to the fact that the use of EIR influences their performance in seminar writing and presentation positively. Electronic books (e-books) were found to be the resource mostly available for the students’ academic consumption. The study identified epileptic power supply and the cost of access as the main challenges faced by the students in the use of EIR.

Empirical studies have been conducted on relationship between library services and students’ academic achievement (Gama, 2008; Goodall and Pattern, 2011). Goodall and Pattern (2011) conducted studies on the impact of school library use and academic performance of students in Hudders field University in United Kingdom. The researchers employed quantitative method to carry out the research. A set of questionnaire was used to elicit data from the participants. The findings of the study showed a positive relationship between the use of library and academic achievement. They found that reasonable provision of library services was a predictor of students’ academic achievement. They observed that students often made use of the library materials, which enhanced their studies in school. They concluded that there were some students who borrowed books and other materials and read them in the library while others did not make use of the library at all. Thus, the more students made use of the library, the more it improved their academic achievement.

Lance and Hofschire (2012) investigated the link between school library and academic achievement in Colorado public schools in the United States of America. Their study examined the provision of library services to see whether it had an impact on the students reading habits. The researchers found that in some schools, where they had provided library services, it increased the reading habits of their students, thus making a positive effect on students' academic achievement, in comparison to schools where they had no library staffing and where a negative relationship on students' academic performance was seen. They concluded that effective library service was a predictor of students' academic achievement and therefore necessary for the academic advancement of the students.

Similarly, Stone and Ramsden (2013) conducted an empirical study on the impact of the library data project on students' academic attainment in the United Kingdom. Eight universities in the United Kingdom were selected as sample for the study and students were used as the respondents. They found that students who accessed the library data for their academic activities had a positive significant relationship with their academic achievement.

Strong (2013) researched on the significance of school library on students' academic attainment and sustainable education in the United States of America. The study revealed that the presence of the school library improved the academic performance of students. Also, Stone, Ramsden and Pattern (2011) studied the relationship between library usage and academic achievement. Their study found a high correlation between library usage and students' academic achievement in schools. A high correlation was achieved because of the students' access to library materials which aided their learning.

Furthermore, there are studies on library services which were conducted in Africa, which substantiates the findings of the preceding studies. For instance, Suleiman, Hanafi and Tanslikan (2018) reported De Jager (1997) where he studied on the link between library use and academic performance of students at the University of Cape Town, South Africa. The researcher collected the first year results of the sampled students as well as the reports of their activity in the school library. The results collected were based on those that had high grades and low grades. The data collected were analysed statistically and the findings of the study revealed that there was a high positive relationship between library and academic achievement.

Objectives of the study

The specific objectives of the study are to:

- i. ascertain the types of electronic information resources used by final year students in colleges of education in Lagos state;
- ii. ascertain the frequency of electronic information resources use by final year students in colleges of education in Lagos state;
- iii. determine the purpose of electronic information resources use by final year students in colleges of education in Lagos state;
- iv. find out the types of reference services rendered to the final year students in colleges of education in Lagos state;
- v. determine the level of quality reference services delivered to final year students in colleges of education in Lagos state;
- vi. determine the level of academic performance of final year students in colleges of education in Lagos state;
- vii. ascertain the relative contributions of electronic information resources use and quality reference service delivery on academic performance of final year students in colleges of education in Lagos state; and
- viii. determine the joint influence of electronic information resources use, quality reference service delivery on academic performance of final year students in colleges of education in Lagos state.

Methodology

The Descriptive survey research design was adopted for this study. The population comprised the 2,051 final year students in two colleges of education in Lagos State, Nigeria. They include: Micheal Otedola College of Primary Education (MOCPED) 115 and Adeniran Ogunsanya College of Education (AOCOED) 1,936. A mixed method (total enumeration and systematic sampling) sampling technique was used for this study. Total enumeration was adopted for MOCPED because the small population, while systematic sampling technique with a sampling fraction of 10% was used to select 194 final year students from AOCOED. This was justified by Nwana (1981) who posits that if a population is a few thousands, 10% sample size selection is adequate. The total sample size for this study was 309 (AOCOED and MOCPED population). The questionnaire and students' academic performance transcripts from the Colleges

Examination and Record Unit were used for data collection. Data was analysed using the frequency counts, tables, percentages, mean and standard deviation for research questions, while multiple regression analysis would be used for testing hypothesis.

Results

Question 1: What are the types of library-based electronic information resources available to final year students in colleges of education in Lagos State?

Table 1: Types of electronic information resources available

S/N	Items	Very Highly Used	Highly Used	Fairly Used	Used	\bar{x}	Std. Dev
1.	E-books	133 (43.9%)	119 (39.3%)	49 (16.2%)	2 (0.7%)	3.26	.748
2.	E-journals	77 (25.4%)	167 (55.1%)	51 (16.8%)	8 (2.6%)	3.03	.727
3.	E-dictionary	72 (23.8%)	106 (35.0%)	76 (25.1%)	49 (16.2%)	2.66	1.013
4.	JSTOR	101 (33.3%)	85 (28.1%)	89 (29.4%)	28 (9.2%)	2.85	.989
5.	HINARI	14 (4.6%)	115 (38.0%)	107 (35.3%)	67 (22.1%)	2.25	.851
6.	EBCOHOST	38 (12.5%)	99 (32.7%)	107 (35.3%)	59 (19.5%)	2.38	.938
7.	PROQUEST	84 (27.7%)	88 (29.0%)	99 (32.7%)	32 (10.6%)	2.74	.981
8.	E-LIBRARY	54 (17.8%)	105 (34.7%)	91 (30.0%)	53 (17.5%)	2.53	.979
9.	CD-ROM DATABASE	99 (32.7%)	158 (52.1%)	11 (3.6%)	35 (11.6%)	3.06	.908
Overall mean = 21.86							

Table 1 shows the types of available electronic information resources in the colleges of education

in Lagos State, Nigeria. The result (Table 1) shows that the respondents indicated that the available types of electronic information resources are: e-books (\bar{x} =3.26; std dev. =.748); CD-ROM database (\bar{x} =3.06; std dev. =.908); e-journals (\bar{x} =3.03; std dev. =.727); JSTOR (\bar{x} =2.85; std dev. =.989); PROQUEST (\bar{x} =2.74; std dev. =.981); e-dictionary (\bar{x} =2.66; std dev. =1.013). It was also indicated by the respondents that least available types of electronic information resources include: HINARI (\bar{x} =2.25; std dev. =.851); EBCOHOST (\bar{x} =2.38; std dev. =.938) and E-LIBRARY (\bar{x} =2.53; std dev. =.979).

Based on this, it can be inferred that the available type of electronic information resources in the colleges of education in Lagos State, Nigeria are e-books, CD-ROM database, e-journals, JSTOR, PROQUEST, e-dictionary among others.

Question 2: What is the frequency of electronic information resources use by final year students in colleges of education in Lagos State?

Table 2: Frequency of electronic information resources use

S/N	Items	Daily (%)	Weekly (%)	Monthly (%)	Quarterly (%)	Never (%)	\bar{x}	Std. Dev
1.	E-books	89 (29.4%)	113 (37.3%)	27 (8.9%)	39 (12.9%)	35 (11.6%)	3.60	1.336
2.	E-journals	27 (8.9%)	60 (19.8%)	60 (19.8%)	37 (12.2%)	119 (39.3%)	2.47	1.404
3.	E-dictionary	50 (16.5%)	55 (18.2%)	53 (17.5%)	49 (16.2%)	96 (31.7%)	2.72	1.482
4.	JSTOR	74 (24.4%)	66 (21.8%)	63 (20.8%)	39 (12.9%)	61 (20.1%)	3.17	1.451
5.	HINARI	63 (20.8%)	48 (15.8%)	86 (28.4%)	29 (9.6%)	77 (25.4%)	2.97	1.452
6.	EBCOHOST	9 (3.0%)	57 (18.8%)	66 (21.8%)	38 (12.5%)	133 (43.9%)	2.24	1.274
7.	PROQUEST	30 (9.9%)	62 (20.5%)	49 (16.2%)	43 (14.2%)	119 (39.3%)	2.48	1.430
8.	E-LIBRARY	36 (11.9%)	48 (15.8%)	76 (25.1%)	41 (13.5%)	102 (33.7%)	2.59	1.397
9.	CD-ROM DATABASE	56 (18.5%)	92 (30.4%)	55 (18.2%)	24 (7.9%)	76 (25.1%)	3.09	1.457
Overall mean = 22.13								

Table 2 shows the frequency of available electronic information resources use in the colleges of education in Lagos State, Nigeria. The result (Table 2) shows that the respondents indicated that the mostly used and available electronic information resources are: e-books (\bar{x} =3.60; std dev. =1.336); JSTOR (\bar{x} =3.17; std dev. =1.451); CD-ROM database (\bar{x} =3.09; std dev. =1.457); HINARI (\bar{x} =2.97; std dev. =1.452); e-dictionary (\bar{x} =2.72; std dev. =1.482); e-library (\bar{x} =2.59; std dev. =1.397). It was also indicated by the respondents that least frequently used available electronic information resources include: EBCOHOST (\bar{x} =2.24; std dev. =1.274); e-journals (\bar{x} =2.47; std dev. =1.404) and PROQUEST (\bar{x} =2.48; std dev. =1.430).

Based on this, it can be inferred that the frequently used and available electronic information resources in the colleges of education in Lagos State, Nigeria are: e-books, JSTOR, CD-ROM database, HINARI, e-dictionary and e-library.

Question 3: What is the purpose of using electronic information resources by final year students in colleges of education in Lagos State? Use this response scale: Keys: SA = Strongly Agree, A = Agree, D =Disagree, SD = Strongly Disagree.

Table 3: Showing the purpose of use of electronic information resources

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	\bar{x}	Std. Dev
1.	I used EIR for my assignment	222 (73.3%)	77 (25.4%)	3 (1.0%)	1 (0.3%)	3.72	.494
2.	EIR assist me in my class-work	181 (59.7%)	106 (35.0%)	15 (5.0%)	1 (0.3%)	3.54	.607
3.	I used EIR to prepare for my examination	218 (71.9%)	82 (27.1%)	2 (0.7%)	1 (0.3%)	3.71	.491
4.	I used EIR in preparing for class test	186 (61.4%)	102 (33.7%)	14 (4.6%)	1 (0.3%)	3.56	.600
5.	I used EIR for my seminar writing and presentation	125 (41.3%)	146 (48.2%)	26 (8.6%)	6 (2.0%)	3.29	.705
6.	EIR is used for my project writing	115 (38.0%)	151 (49.8%)	34 (11.2%)	3 (1.0%)	3.25	.687
7.	I used EIR during my leisure reading	117 (38.6%)	139 (45.9%)	39 (12.9%)	8 (2.6%)	3.20	.762
8.	I used EIR to complement my lectures	84 (27.7%)	127 (41.9%)	75 (24.8%)	17 (5.6%)	2.92	.863
Overall mean = 27.19							

Table 3 shows the purpose of using electronic information resources in the colleges of education in Lagos State, Nigeria. The result (Table 3) shows that the respondents indicated that the available electronic information resources are mostly used for the following purposes: assignment (\bar{x} =3.72; std dev. =.494); to prepare for their examinations (\bar{x} =3.71; std dev. =.491); preparing for class tests (\bar{x} =3.56; std dev. =.600); class works (\bar{x} =3.54; std dev. =.607); seminar writing and presentations (\bar{x} =3.29; std dev. =.705); project writing (\bar{x} =3.25; std dev. =.687) and leisure reading (\bar{x} =3.20; std dev. =.762). It was also indicated by the respondents that least

purpose(s) towards which the available electronic information resources is used for include: complementing their lecture ($\bar{x}=2.92$; std dev. =.863).

Based on this, it can be inferred that the purposes toward which the available electronic information resources in the colleges of education in Lagos State, Nigeria are used for include: assignment, to prepare for their examinations, preparing for class tests, class works, seminar writing and presentations, project writing and leisure reading respectively.

Question 4: What are the types of reference services rendered to the final year students in colleges of education in Lagos State? Use this response scale: Keys: SA = Strongly Agree, A = Agree, D =Disagree, SD = Strongly Disagree

Table 4: Types of reference services rendered in the Colleges of education

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	\bar{x}	Std. Dev
1.	Information retrieval services is offered in my college library	38 (12.5%)	83 (27.4%)	98 (32.3%)	84 (27.7%)	2.25	.997
2.	Reference librarian send me an up-to-date information material newly acquired by the library (current awareness services)	38 (12.5%)	97 (32.0%)	85 (28.1%)	83 (27.4%)	2.30	1.005
3.	My college library alerts me when there is new availability of resources through e-mail, SMS, phone calls among others. (Selective Dissemination services)	52 (7.2%)	81 (26.7%)	100 (33.0%)	70 (23.1%)	2.38	1.022
4.	Reference librarian introduced me to another library whenever my request is not met. (Referral Services)	27 (8.9%)	70 (23.1%)	109 (36.0%)	97 (32.0%)	2.09	.950
5.	My questions are adequately answered by the reference librarian. (Answering users' questions)	29 (9.6%)	56 (18.5%)	92 (30.4%)	126 (41.6%)	1.96	.993
6.	Library orientation services is provided when I gained admission into the college	27 (8.9%)	66 (21.8%)	123 (40.6%)	87 (28.7%)	2.11	.923
7.	Reference librarians Provide answers to my research questions	23 (7.6%)	81 (26.7%)	124 (40.9%)	75 (24.8%)	2.17	.890
8.	Document requested by students is delivered as at when available. (Document delivery)	38 (12.5%)	90 (29.7%)	104 (34.3%)	71 (23.4%)	2.31	.968
9.	Past works available in the library can be consulted for further research (Retrospective searching)	37 (12.2%)	40 (13.2%)	118 (38.9%)	108 (35.6%)	2.02	.990
10.	Works of different authors or subjects are available for consultation in my college library (Bibliographic verifications)	70 (23.1%)	88 (29.0%)	90 (29.7%)	55 (18.2%)	2.57	1.036

11.	My college library loans out Information materials to students	57 (18.8%)	86 (28.4%)	100 (33.0%)	60 (19.8%)	2.46	1.012
12.	Database services in my college library enhance my searching skills in locating journal articles, conference papers, and so on. (Database searches)	62 (20.5%)	97 (32.0%)	94 (31.0%)	50 (16.5%)	2.56	.994
13.	Indexing and abstracting services is offered in my college library	33 (10.9%)	68 (22.4%)	119 (39.3%)	83 (27.4%)	2.17	.953
Overall mean = 29.35							

Table 4 reveals the types of reference services rendered by the libraries in the colleges of education in Lagos State, Nigeria. The result (Table 4) reveals that the respondents indicated that some of the potent reference services rendered include: works of different authors or subjects are available for consultation in my college library (Bibliographic verifications) ($\bar{x}=2.57$; std dev. =1.036); database services in the libraries enhance students searching skills in locating journal articles, conference papers, and so on (Database searches) ($\bar{x}=2.56$; std dev. =.994); colleges libraries loans out Information materials to students ($\bar{x}=2.46$; std dev. =1.012); the college libraries alerts students when there is availability of new resources through e-mail, SMS, phone calls among others (Selective Dissemination services) ($\bar{x}=2.38$; std dev. =1.022); document requested by students is delivered as at when available (Document delivery) ($\bar{x}=2.31$; std dev. =.968); reference librarian send me an up-to-date information material newly acquired by the library (current awareness services) ($\bar{x}=2.30$; std dev. =1.005); offering of information retrieval services in the libraries ($\bar{x}=2.25$; std dev. =.997). It was also indicated by the respondents that the least reference services rendered in the libraries include: students' questions are adequately answered by the reference librarian (Answering users' questions) ($\bar{x}=1.96$; std dev. =.993); past works available in the library can be consulted for further research (Retrospective searching) ($\bar{x}=2.02$; std dev. =.990); reference librarian introduced students to their libraries whenever their requests are not met (Referral Services) ($\bar{x}=2.09$; std dev. =.950) and library orientation services is provided when new students gained admission into the colleges ($\bar{x}=2.11$; std dev. =.923).

Based on this, it can be inferred that some of the potent reference services rendered by the libraries in the colleges of education in Lagos State, Nigeria includes: bibliographic verifications services, database searches services, giving out materials services, selective dissemination services, document delivery services, current awareness services and information retrieval services among others.

Question 5: What is the level of quality of reference services delivered to the final year students in colleges of education in Lagos State? Use this response scale: Keys: SA = Strongly Agree, A = Agree, D =Disagree, SD = Strongly Disagree

Table 5: Level of quality of reference services delivered in the Libraries

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	\bar{x}	Std. Dev
Tangibility							
1.	My college library has modern equipment that facilitate easy information retrieval	73 (24.1%)	109 (36.0%)	77 (25.4%)	44 (14.5%)	2.70	.993
2.	There are latest electronic information resources hardware that help me to access my needed information easily	55 (18.2%)	105 (34.7%)	65 (21.5%)	78 (25.7%)	2.45	1.063
3.	Various materials related to the services rendered in my school library (e.g., pamphlets, flyers, manuals etc) are visually attractive and at hand	80 (26.4%)	87 (28.7%)	87 (28.7%)	49 (16.2%)	2.65	1.040
4.	There is a quiet space in my school library where I can perform my individual activity (reference section)	33 (10.9%)	104 (34.3%)	96 (31.7%)	70 (23.1%)	2.33	.951
5.	The reference section is inviting and comfortable	24 (7.9%)	67 (22.1%)	86 (28.4%)	126 (41.6%)	1.96	.978
6.	The reference librarians always look neat, thereby inspires my study and learning	35 (11.6%)	81 (26.7%)	101 (33.3%)	86 (28.4%)	2.21	.985
Overall mean = 14.3							
Reliability							
7.	Reference librarians are always trusted and available at the reference desk	32 (10.6%)	98 (32.3%)	89 (29.4%)	84 (27.7%)	2.26	.980
8.	When users have a problem, the librarians show a sincere effort to solve it	47 (15.5%)	99 (32.7%)	87 (28.7%)	70 (23.1%)	2.41	1.008
9.	My college library offers adequate service from my first encounter and further	52 (17.2%)	41 (13.5%)	106 (35.0%)	104 (34.3%)	2.14	1.073
S/N	Items	SA (%)	A (%)	D (%)	SD (%)	\bar{x}	Std. Dev
10.	Library insists on an immaculate (perfect) service	75 (24.8%)	92 (30.4%)	81 (26.7%)	55 (18.2%)	2.62	1.048
11.	Reference librarians always keep to their promises in solving users' problems	86 (28.4%)	86 (28.4%)	83 (27.4%)	48 (15.8%)	2.69	1.049
Overall mean = 12.12							
Responsiveness							
12.	Reference librarians attended to my requests promptly	58 (19.1%)	101 (33.3%)	114 (37.6%)	30 (9.9%)	2.62	.905
13.	Reference librarians are never too busy to meet my request	47 (15.5%)	88 (29.0%)	111 (36.6%)	57 (18.8%)	2.41	.965
14.	Reference librarians in my school library notify me when information about my request is available through	30 (9.9%)	62 (20.5%)	140 (46.2%)	71 (23.4%)	2.17	.900

	e-mail, phone calls, text messages and so on						
15.	Reference librarians are always ready to respond/help users	42 (13.9%)	94 (31.0%)	81 (26.7%)	86 (28.4%)	2.30	1.029
16.	Relevant information materials requested/suggested by students are acquired by the library	68 (22.4%)	86 (28.4%)	(31.0%)	55 (18.2%)	2.55	1.031
Overall mean = 12.05							
Assurance							
17.	I feel safe and secured whenever I used my school library	29 (9.6%)	90 (29.7%)	111 (36.6%)	73 (24.1%)	2.25	.929
18.	Reference librarians in my school library have the knowledge to answer my questions	24 (7.9%)	61 (20.1%)	93 (30.7%)	125 (41.3%)	1.95	.965
19.	There are relevant information materials needed to answer users' questions in the reference collection	32 (10.6%)	67 (22.1%)	102 (33.7%)	102 (33.7%)	2.10	.987
20.	Reference librarians are always sure of their explanations whenever the need arise	26 (8.6%)	86 (28.4%)	109 (36.0%)	82 (27.1%)	2.18	.931
21.	Reference librarians' behaviour conveys the trust I have in them	39 (12.9%)	93 (30.7%)	95 (31.4%)	76 (25.1%)	2.31	.989
Overall mean = 10.79							
Empathy							
22.	Reference librarians gives users individual attention	40 (13.2%)	42 (13.9%)	108 (35.6%)	113 (37.3)	2.03	1.021
23.	Operating hours of the library are suitable for users' needs	59 (19.5%)	98 (32.3%)	82 (27.1%)	64 (21.1%)	2.50	1.032
24.	Reference librarian has the best interest of users at heart	69 (22.8%)	93 (30.7%)	100 (33.0%)	41 (13.5%)	2.63	.981
25.	Reference librarians are approachable whenever a user has problem (friendly)	57 (18.8%)	103 (34.0%)	109 (36.0%)	34 (11.2%)	2.60	.918
26.	Reference librarian have understanding for special needs of their users	31 (10.2%)	79 (26.1%)	130 (42.9%)	63 (20.8%)	2.26	.902
Overall mean = 12.02							
Total mean = 61.28							

Table 5 describes the level of quality of reference services rendered by the libraries in the colleges of education in Lagos State, Nigeria. This is sub-divided into five (5) different categories comprising: tangibility, reliability, responsiveness, assurance and empathy. The result (Table 4.8) reveals that the respondents indicated that some of the quality reference services rendered in the libraries include: our college libraries have modern equipment that facilitate easy information retrieval (\bar{x} =2.70; std dev. =1.036); reference librarians always keep to their promises in solving users' problems (\bar{x} =2.69; std dev. =1.049); various materials related to the services rendered in the schools' libraries (e.g., pamphlets, flyers, manuals etc) are visually attractive and at hand (\bar{x} =2.65; std dev. =1.040); reference librarians have the best interest of users at heart (\bar{x} =2.63; std dev. =.981); reference librarians attended to students requests promptly (\bar{x} =2.62; std dev. =.905); libraries insist on an immaculate (perfect) service (\bar{x} =2.62; std dev. =1.048); reference librarians are approachable whenever a user has problem (friendly) (\bar{x} =2.60; std dev. =.918); relevant information materials requested/suggested by students are

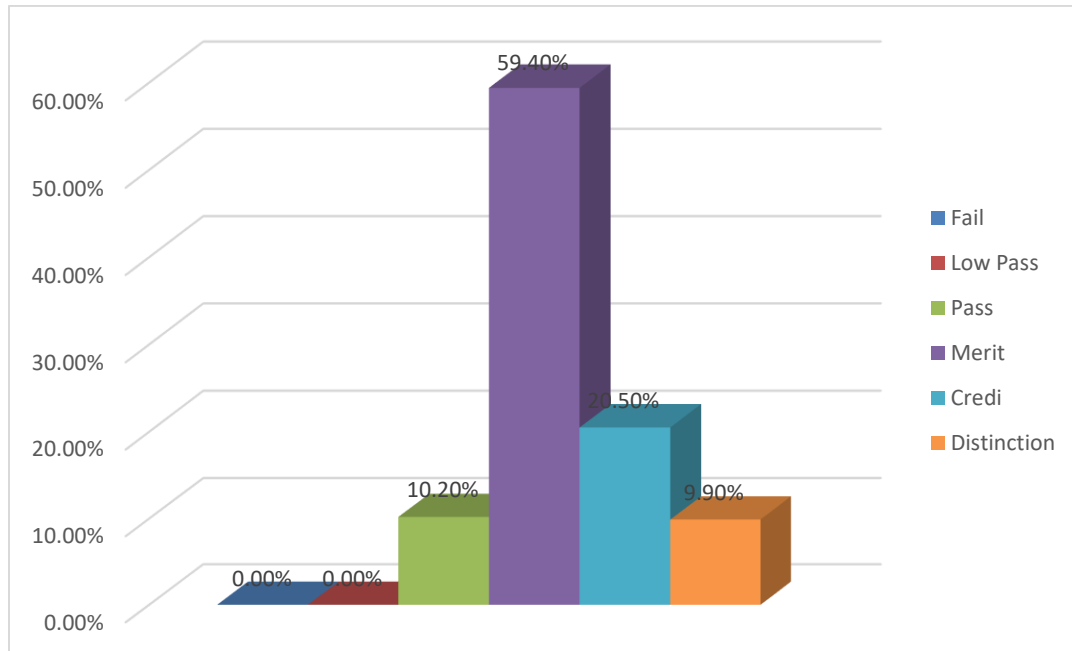
acquired by the libraries (\bar{x} =2.55; std dev. =1.031) and that the operating hours of the library are suitable for users' needs (\bar{x} =2.50; std dev. =1.032). It was also indicated by the respondents that the least quality reference services rendered in the libraries include: reference librarians in the schools' libraries have the knowledge to answer students' questions (\bar{x} =1.95; std dev. =.965); the reference section is inviting and comfortable (\bar{x} =1.96; std dev. =.978); the colleges libraries offer adequate service from student's first encounter and further (\bar{x} =2.14; std dev. =1.073) and reference librarians in schools' libraries notify students when information about their requests is available through e-mail, phone calls, text messages and so on (\bar{x} =2.17; std dev. =.900).

Based on this, it can be inferred that some of the powerful quality reference services rendered by the libraries in the colleges of education in Lagos State, Nigeria includes: the colleges libraries have modern equipment that facilitate easy information retrieval, reference librarians always keep to their promises in solving users' problems, various materials related to the services rendered in the schools' libraries (e.g., pamphlets, flyers, manuals etc) are visually attractive and at hand, reference librarians have the best interest of users at heart, reference librarians attended to students requests promptly, libraries insist on an immaculate (perfect) service, reference librarians are approachable whenever a user has problem (friendly), relevant information materials requested/suggested by students are acquired by the libraries, the operating hours of the library are suitable for users' needs among others..

Analysing the degree at which these quality services are been rendered along the five categories that this construct is been construed shows that these services are best rendered under the tangibility sub-category (\bar{x} =14.3; std dev. =6.01); followed by reliability (\bar{x} =12.12; std dev. =5.158); responsiveness (\bar{x} =12.05; std dev. =4.83); empathy (\bar{x} =12.02; std dev. =4.854) and assurance (\bar{x} =10.79; std dev. =4.801).

To be able to determine the level of quality of reference services delivered in the colleges' libraries, a test of norm was conducted. Result shows that scale between 1 – 34.66 is low, 34.67 – 69.33 is moderate, while 69.34 – 104 is high. The overall mean for level of quality of reference services delivered in the colleges' libraries is “61.28” which falls between the scales “34.67 – 69.33”. It can therefore be concluded that the level of quality of reference services delivered in the libraries of the colleges of education in Lagos State, Nigeria is moderate.

Question 6: What is the level of academic performance of final year students in colleges of education in Lagos State?



The result presented in Figure 4.1 shows the academic performance of the final year students of the colleges of education in Lagos State, Nigeria. The result shows that none of the students' academic performance grade measured using their CGPA failed (0.00-0.99) nor has Low Pass degree (1.00-1.49) grade, 31(10.20%) have their CGPA within the Pass grade (1.50-2.39), 180(59.40%) are into Merit (2.40-3.49) academic grade, 62(20.5%) have Credit (3.50-4.49) academic grade while the remaining 30 (9.9%) are into Distinction (3.50-4.49) academic grade.

Based on this, it can be inferred that the academic performance of the students as measured using their Cumulative Grade Points Average (CGPA) is very good.

Question 7: What is the relative contributions of electronic information resources use and quality reference service delivery on academic performance of final year students in colleges of education in Lagos State?

Table 7: Summary of regression analysis showing the relative contribution of electronic information resources use and quality reference service delivery on academic performance of final year students

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Remark
	(B)	Std. Error				
Constant	17.038	2.876		5.923	.000	-
electronic information resources	.340	.089	.194	3.822	.000	Sig
Quality reference service delivery	.526	.061	.436	8.568	.000	Sig

Note: hypothesis is tested at 0.05 significant level

Table 7 reveals that there is significant relative contribution of the independent variables comprising personal electronic information and quality reference service delivery on dependent variable (the academic performance of final year students) expressed as beta weights. This shows that the predictive coefficient of both electronic information and quality reference service delivery on dependent variable (the academic performance of final year students) is significant. Using the standardised regression coefficient to determine the relative predictions of the independent variables, quality reference service delivery ($\beta = .436$, $t = 8.568$, $p < 0.05$) has the most potent prediction to the academic performance of students followed by electronic information resources ($\beta = .194$, $t = 3.822$, $p < 0.05$). This implies that both electronic information resources and quality reference service delivery have significant relative predictions toward the academic performance of final year students. Thus, the null hypothesis stating that there is no significant relative prediction of electronic information resources and quality reference service delivery on academic performance of final year students in the colleges is hereby rejected in favour of the alternative hypothesis.

Question 8: What is the significant joint relationship between electronic information resources use, quality reference service delivery and academic performance of final year students in colleges of education in Lagos State.

Table 8: Summary of regression analysis of the joint prediction between electronic information resources use, quality reference service delivery and academic performance of final year students

R	R Square	Adjusted R Square	Std. Error of the Estimate			
.491 ^a	.241	.236	5.595			
SUMMARY REGRESSION ANOVA						
	Sum of Squares	Df	Mean Square	F	P	Remark
Regression	2927.197	2	1463.599	46.761	.000 ^b	Sig.
Residual	9233.424	295	31.300			
Total	12160.621	297				

Note: hypothesis is tested at 0.05 significant level

Table 8 shows that there is significant joint prediction of the independent variables; electronic information resources use and quality reference service delivery on dependents variable (academic performance of final year students). The table (Table 8) also shows a coefficient of multiple correlations (R) of 0.491 and a multiple adjusted R square of .236. This implies that the 23.6% variance in the academic performance of final year students of the colleges of education in Lagos State, Nigeria is accounted for by the independent variables when taken together. The significance of the composite contribution was tested at $p < 0.05$ using the F- ratio at the degree of freedom (df- 2/297). The table also showed that the analysis of variance for the regression yielded a F-ratio of 46.761. This implies that the above ANOVA result is significant at 0.05 level. Thus, the null hypothesis stating that there no significant contribution of electronic information resources use and quality reference service delivery on academic performance of final year students of the colleges of education is hereby rejected.

Conclusion

The study resolved that students' academic performance is predisposed to the provision, availability and accessibility of electronic information resources and effective reference service delivery in the schools' libraries. Now that the whole world has gone digital, the role and relevance of electronic information resources together with quality reference services cannot be over-emphasised if students' academic performances are to be improved upon.

Recommendations

The following recommendations were made based on the findings of this study;

1. Government should increase funding for the provision of electronic information resources in libraries to be able to meet up with the library resources availability and utilization needs of the users. In getting this done, provision in terms of special budgeting be made for the libraries.
2. Academic libraries need to invest more in the training and provision of more e-resources to meet the information of all users. They should as a matter of policy enforce library orientation to its users for effective utilization of library resources.
3. The school management should endeavour to introduce such services like Selective Dissemination of Information (SDI), Current Awareness services (CAS), Indexing and abstracting services and inter library loan services as parts of services rendered; which are either not available or not adequate in the libraries under study. These services, if provided, will go a long way in enhancing users' academic activities.
4. There is also need for the management to motivate library users to ensure that the bibliographies tools for library search are used to a high extent. In doing this, they must also ensure that adequate measures are put in place that will make library services and resources accessible to users so as to increase the proportion of users.
5. To be able to boost students' quest for global and current information that may be lacking in printed form, the management must, as a matter of urgency, provide internet services to users at affordable cost. More so, the librarians should be approachable and willing to go extra mile in solving the problems of the users.

References

