USE OF ONLINE PUBLIC ACCESS CATALOGUE AMONG UNDERGRADUATES IN UNIVERSITY LIBRARIES IN SOUTH WEST, NIGERIA

BY

FMRI, OGOCHUKWU, T Pa.D

DELTA STATE UNIVERSITY LIBRARY, ABRAKA

Abstract

The study investigated Information Communication Technology skills and use of Online Public Access Catalogue among undergraduates in South-West, Nigeria. The study objectives sought to find out the ICT skills possessed by undergraduates in the university libraries for the use of Online Public Access Catalogue (OPAC) ascertain the avenues through which the undergraduates acquire ICT skills and determine the extent to which the undergraduates use OPAC in the university libraries. In carrying out this study, three research questions were raised and two null hypotheses were formulated and tested at P < 0.05. Descriptive survey method was adopted for the study. The target population for the study was 220,750 undergraduates from nine selected universities in South West, Nigeria that had functional OPAC in their libraries. The sample was 1422 undergraduates drawn through multi-stage sampling techniques. The instrument used was a questionnaire titled "CT Skills, Demographic Factors and Use of Online Public Access Catalogue Among Undergraduates Questionnaire (ISDFUOPACAUQ). The data obtained were analysed, using frequency, mean, cross-tabulation, t-test and ANOVA. The findings of the study showed that the undergraduates in universities in South West. Nigeria possessed the ICT skills for use of OPAC. They are: ability to use of mouse, open, close and resize windows, use the menu bar and power shutdown correctly. Undergraduates acquired their ICT skills through: sejlearning, textbooks, course in secondary school and ICT training. The undergraduates moderately used OPAC search types such as author search, journal title search, title search and series statement search in their search for information. Undergraduates in universities in South West, Nigeria moderately used OPAC search strategies such as keyword search, phrase search anc. expert/advance search. The findings of the research also revealed that there was a significant difference in the ICT skills possessed by undergraduates for the use of OPAC in the federal, state and private university libe wies ... So ith West, Nigeria. There was significant difference among federal, state and private university

undergraduates in the extent of their use of OPAC, in their university libraries. Based on the findings, it was recommended that; to facilitate optimal utilization of OPAC, universy libraries should or ganisuser edication programmes for undergraduates in their institutions. Also, universities should formulate and implement policies that will make inclusion of practical-based introduction to OPAC as one of the topics in the courses on the use of library; and that government should implement policies that will incorporate "introduction of computer" as a subject in the curriculum of secondary school students, among others. This will help them to be properly armed with the required ICT skills for the effective use of OPAC.

Reywords: Online Public Access Catalogue (OPAC), Usage, ICT Skills, Undergraduates

ntroduction

Today's undergraduates are in need of timely access to appropriate information. Undoubtedly, the main duty of a library is to facilitate access to non-print and print information resources. In the 20th Century, an outstanding information technology accomplishment was transformation of card catalogue into the Online Public Access Catalogue (OPAC) Aina (2004) and Zaid (2004) emphasized that OPAC offers many opportunities to improve library service. One vital innovation in libraries as a result of the application of Information and Communication Technology (ICT) is the emergence of OPAC. It facilitates access to the collection or information resources of any library electronically. In addition, OPAC is a recent technology used to provide easy and quick access to the diverse information contained in the record or database of the library (Gohain & Saikai, 2013).

The observed low usage of university libraries in Nigeria by many undergradates could have adverse effects on the quality of graduates produced by universities. Without adequate library utilization, learning, teaching and research in the university become problematic. In addition, proper utilization of library is critical for the justification of the existence and survival of any university library. Nwokedi & Ogundare (2005) noted "that a major objective of any library is to ensure that optinal use is made of its resources and services." Irrespective of how rich the library collection may be, if library users do not effectively use them, the library collection is regarded as a waste (p.238). Undergraduates are very vital in the librarianship practice because they are the centre of library processes. Undergraduates must be encouraged to assess the resources and services provided by libraries. Despite the large size of the resources of a library, if the services and

its resources are not fully used, such a library will be an unprofitable project. Ignoring users' satisfaction is done at the library's peril.

Butterfield (2003) noted that, historically, libraries have had one form of catalogue or another, ranging from a mental list in the mind of the librarian, to book catalogue, and indexes to card catalogue. These catalogues have existed to guide undergraduates through the collection they wish to use. With the emergence of Online Public Access Catalogue (OPAC), which is a networked, generally accessible entity, it became possible to exploit the library collections without pulling the drawers of three by five cards. Guha and Saraf (2005) reported that the OPAC, in its very rudimentary form, first emerged in the late 1970s and subsequently went through several generations of developments. OPAC is an electronic-based catalogue that can be accessed through remote computer terminals within or outside a library. There are two kinds of OPAC: in-house and web-based OPAC. In house OPAC is that which operates within one's own institution while the other is that which connects the holdings of several institutions other than one's own (JISC, 1999). The former is also known as Library-based or Institution-based OPAC.

ICT skills are the skills one requires to possess to enable the effective and efficient OPAC use and other ICTs. These skills are necessary requisites for proper use of OPAC. Undergraduates who possess ICT skills can conveniently to cope with ICT demands in this 21st Century. Moreso, undergraduates who do not have these skills are likely to encounter challenges using OPAC and other ICT facilities (Hindi, Miller & Wenger, 2002). The ICT skills that are required by undergraduates are: to allow turn on or off the computer; saving files to a flash or specific location; print documents; use input devices like mouse/keyboards keys; use peripheral devices like scanners; use any web browser; navigate OPAC/internet; use databases; use Microsoft Word; spreadsheet; operate electronic presentation; run a computer program; network computers; secure computer files; etc. (Tella & Mutula, 2008). Adequate knowledge of ICT skills enables one to use OPAC excellently. Undergraduates who are competent in ICT skills can import, capture, process, store and transfer information that will assist them to focus on information content, communication, analysis, searching and evaluation (Hindi, Miller & Wenger, 2002). For adequate acquisition of the needed ICT skills needed for excellent use, foundational ICT based courses should be incorporated into the education sector. The curriculum of secondary schools and tertiary institutions are designed in a manner that these transferable skills and learning outcomes would be achieved through undergraduate study programmes (Tella & Mutula, 2008)

Higher education institutions have adopted ICT as a means to irpact upon undergraduates, the skills and knowlege demand by 21st Century educational advancement (UNE 60, 2002). Adomi and Kpangban (2010) opined that there are clanges in the Nigerian library sector and libraries which indicated some improvement in the application of CTs in the secondary schools (5.245). The National Policy on Education of Nigeria (FRN, 2004), clearly specificul the vital role of ICTs in the 21st century and has strongly recommended the inclusion of ICTs into Nigerian educational system. Also, undergraduates in Nigerian universities are usually exposed to ICTs skills through the orientation programme organized by the university libraries for all freshers in tertiary institutions and the offering of a compulsory course titled "Introduction to Computer". (Mulla and Chandrashekara (2009) opined that undergraduates acquire their ICTs skills through various user education programmes such as: lecture/talks, seminars/conferences, orientations/training OPAC use modules, etc.

Objectives of the Study

The main objective of the study was to investigate ICT skills and use of Online Public Access Catalogue (OPAC) among the undergraduates of university libraries in South West, Nigeria. Specifically, the objectives of the study were to:

- i. Find out the ICT skills possessed by undergraduates in the university libraries for the use of Online Public Access Catalogue (OPAC) in South West, Nigeria;
- ii. Ascertain the avenues through which the undergraduates acquire ICT skills;
- iii. Determine the extent to which the undergraduates use OPAC in the university libraries;

Research Questions

The study sought to provide answers to the following research questions:

- i. What are the ICT skills possessed by undergraduates in the university libraries for the use of Online Public Access Catalogue (OPAC) in South -West, Nigeria?
- ii. Through what avenues do the undergraduates acquire their ICT skills?
- iii. To what extent do the argraduates used in the university libaries?

Hypotheses

The following null hypotheses were tested in this study at 0.05 level of significance:

- Hol. There is no significant difference in the ICT skills possessed by the undergraduates and their use of OPAC in the universities in South West, Nigeria.
- Ho2. There is no significant difference among the undergraduates in the Federal, State and Private university libraries and the extent to which they use OPAC.

Literature Review

ICT plays sign licant role in information processing and retrieval systems. In recent days, libraries in universities are providing various services such as CPAC digital library (DL), database services, institutional repositories, etc. In order to benefit from these services offered in university libraries to do search and retrieval. users will require to possess necessary ICT skills. Salisbury and Ellis (2003) stated that "professors might believe undergraduates to be computer literate, but most undergraduates cannot demonstrate foundational skills for information research" (p.210). Wu, Yu and Weng (2012) opined that "intellectual capabilities, information technology concepts and ICT skills are components of fluency with information technology" (p.93). Setting up a personnel computer, using basic operating system features and connecting a computer to a network area or OPAC are important skills among information technology tasks (National Research Council, 1998). McDonald (2004) indicated that "the current challenges for universities is to ensure that their undergraduates meet a minimum level of computer competency when using new and changing information technology such as the OPAC" (p.30).

Several research works have been done on the relationship between information or computer competencies and information searching skills. Majid and Abazova (1999) found a positive correlation between the level of proficiency of ICT skills and OPAC use in libraries. Users with good and excellent information and communication technology skills tend to use the OPAC than those with poor ICT skills. Ren (1999) reported that users with higher computer self-efficacy searched the OPAC and the internet more frequently than those with lower computer-self-efficacy. Also, a research by January (2005) stated that "undergraduates and

troubles finding course-related information materials because they were not conversant with library computer systems". Gross and Latham (2009) establish that undergraduates were proficient in the use of computer, but their information and knowledge retrieval skills were inadequate (p.89).

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Anyaoku (2012) asserted that "information and communication technologies (ICTs) have transformed services in most libraries in the world". Currently, technology adoption by libraries has moved from the stage where ICT has permeated into almost all spheres of library services and routines (p.129). The development entails that a large part of users' responsibility in the 21st century involve working with computers. This has led to additional skills requirement. Zin et al. (2000) observed that knowledge, skill and competence with computer technology are now assets for those entering the competitive employment market, every aspect of life from education, leisure and work environment. The social interaction is being influenced by computer technology. Therefore, ICT has brought about the demand for acquiring of fresh human skills, abilities and capabilities/competencies for effective and efficient use of the library.

atti and Adetimirin (2017) reported that some universities in Nigeria such as Matemi Awolowo University (OAU) and University of Lagos (UNILAG) require their students to demonstrate some reasonable level of computer literacy. Also, some universities now offer certain introductory computer courses to assist undergraduates in attending to the needs of the computer literacy world. They reported that the level of OPAC in the two universities was extremely low. This means undergraduates are not taking full advantage of the availability of OPAC in their university libraries. This is not encouraging considering the enormous investment the universities have put in place to set up OPAC. Fati and Adetimirin (2017) investigation also showed that undergraduates of OAU and UNLAG possess ICT skills for OPAC use but concluded that undergraduates South West, Nigeria Level of ICT literacy is not a precondition for their use of OP AC. This implies that OPAC use in both institutions is still very low inspite of high level of ICT literacy. Also, a study by Ogbole and Morayo (2017) showed that there is significant relationship between undergraduates' ICT skills and OPAC use in two university libaries (Federal University of Agriculture and University of Ibadan) was not accepted because the P value of 0.00 is less than the level of significance of 0.05. The r- value at 0.312 indicated a low and positive degree relationship between undergraduates' ICT skills and OPAC use. This implies that undergraduates' ICT skills are relatively related to OPAC use in the two university libraries.

There are a number of avenues by which undergraduates acquire ICT skills. Oduronke (2012) revealed that there are several sources with which ICT skills are acquired among undergraduates of both new and established undergraduates. He mentioned thatfamily and friends followed by self-tuition has been the major method used by undergraduates in the context of general leisure or interest—activities but not focused for educational environments. For the young individuals and individuals with high educational levels, the main method of ICT skills acquisition is through an educational institution. However, the issue of how and where undergraduates learn ICT skills can affect the quality of ICT skills learnt. Some skills may not be learnt and undergraduates may never know such skills do exist.

Odede and Enakerakpo (2014), in their study, revealed that "ICT skills were acquired through integration into course of study for undergraduates in the university" (p.100). They also found that a lot of undergraduates got their ICT skills in other computer training certificate programs studied outside the university most probably from computer literacy training centres. A few got their skills through a tailored model such as goronet. Some undergraduates got their skills through lectures offered by cybercafé/information centre staff. Some others got their ICT skills through trial and error. Beebe (2004) noted that these are different avenues in which undergraduates acquire information and communication technology skills from formal training sessions in school or at college or information tuition from friends, families or peers. Undergraduates can also teach one another with user manuals. Kumar and Kaur (2006:180) stated that "ICT skills can be acquired through training from schools and self-instruction".

Okiki and Mabawonku (2013) in their study using a descriptive statistic, investigated the ICT literacy skills acquisition of academic staff. Using an information literacy skills acquisition scale, they revealed that academic staff, just like undergraduates in their days, acquired ICT skills through attending seminars and workshops (N=853, 98%), self-teaching (N=744, 85%), assistance from other colleagues (N=714, 82%). Others acquired their skills through trial and error (N=645, 74%), guidance from library staff (N=635, 73%) and via institutional training (N=610, 70%). Adetimirin (2012) confirmed similar percentages in his research that majority of undergraduates acquired skills through friends and personal developments.

The lack of qualified teachers to teach ICT in schools is one major constraint to the acquisition of ICT learning. The rise for ICT knowledge has been incredible in secondary schools; however, the total of teachers who are educated to teach ICT

cannot match the demand. There are most under raduates willing to be taught computing skills than the number of teachers to transfer the skills. The insufficient number of computers which could be a result of the cost in purchasing the needed number of computers to teach is one reason why there is limited number of systems (Anene. Ikerionwu & Danladi, 2013). Despite the spirited efforts by the government agencies, Non-Governmental Organisations, corporate organizations and individuals, the supply of computer and other ICT devices is low. This has resulted in the low acquisition of ICT skills. There is a high cost of running power plants due to the epileptic electricity power supply. Computers and other ICT devices run effectively with stable power supply and schools with ICT training centres are yet to connect to electricity in most developing countries such as Kenya and Nigeria. Those places and schools that fall within epileptic power supply zones have difficulties in training and acquiring ICT skills (Anene, Ikerienwu & Darladi, 2013).

According to Fabunnii and Asubiojo (2013), university libraries are adopting and implementing the use of ICTS such as the Internet, computerized system and OPAC in the library. There is growing and frequency in OPAC use in libraries because majority of libraries users see OPAC as a faster, easier and more convenient information search tod. Fahunnii and Asubiojo (2013) posited that undergraduates prefer and frequently use the OPAC system and they do not see the need to go through the rig orous activity of searching through the manual catalogue. Gohain and Saikai (2013), in a study on use and users' satisfaction on OPAC services among Bachelor of Technology undergraduates of School of Engineering in Tezpur University, revealed that of the 51.03% (199) respondents used OPAC every day. 23.85% (93) respondents have the habit to use OPAC services 2-3 times in a week. Very few 18.20% (71) respondents indicated that they use OPAC occasionally and only 6.92% (27) respondents mentioned that they THE PROPERTY OF THE PROPERTY O do not use OPAC. the property of the property o

Sankari, Chinnasamy, Babasubramanian and Muthuraj (2013) in their study found that 51 (39.23%) of the respondents used the OPAC, 32 (24.62%) of the undergraduates used it once in two days. 19 (1462%) used it once in a week and 14 (10.77%) used it twice in a week. Similarly, 9 (6.92%) of the undergraduates used it once in 2 weeks, only 5 (3.85%) of them used it once in a month. Nearly 40% of the members used the OPAC at library almost every day. Thanuskodi's (2012) study showed that out of 268, only 31.35% of undergraduates frequently used the OPAC, 25.38% of undergraduates used OPAC occasionally, 28.89% of respondents used OPAC rarely and 22.38% of undergraduates never used the OPAC. This means only one-third of the respondents used OPAC frequently.

Robinson (2012), in a study on redefining our OPAC computers with google's Chromebox, reported that "400 level undergraduates conducting research frequently use the OPAC system than 100 level or 200 level" (p.667). Undergraduates conducting research often use the OPAC system daily, twice a week or many times a week compared to the occasional use of OPAC among 100 level or 200 level undergraduates. Positive attitude and reliance on OPAC system in university libraries by students shows a high frequency of use of the OPAC. Today, undergraduates no longer visit the library to conduct the manual card catalogue but search the library OPAC, which provides them the opportunity to easily and quickly gain access to needed information materials. In a study conducted by Thanuskodi (2012) on OPAC use of Annamalai University Library, India, it was found that 84% of undergraduates used the OPAC frequently, 68% of the undergraduates use the OPAC occasionally, 50% of the undergraduates used the OPAC rarely, while 20% of the undergraduates never used the OPAC.

Priyanwanda and Wanigasoriya (2012:2) stated that "in an automated library with OPAC availability, students visit the library frequently to use the OPAC system for information searching and retrieval" (p.2). In the view of Peltier-Davies (2009) it was reported that 68% of the students used the OPAC occasionally. Similarly, Walter (2008) reported that "the frequency of use of OPAC among students ranges from 'very frequent', 'frequent', 'occasionally', 'rarely' and 'never'". Walter (2008) noted that "majority of the students use the OPAC system very frequent, and frequent, respectively while others use the OPAC system 'occasionally' and 'rarely' as the case may be."

Fabunmi and Asubiojo (2013:3) noted that "the introduction, adoption and use of OPAC had revolutionized traditional accessibility to libraries resources in university libraries in particular" (p.3). OPAC is an interface of information retrieval system which assists information seekers or users to access resources of libraries using several access points. This has made locating and searching of bibliographic records of resources easier and faster. However, from the above, or could be seen that the use of OPAC does not require the assistance of the library staff and this suggests that the users or undergraduates should possess necessary ICT skills to allow them use the OPAC system effectively. Studies have snown that undergraduates constitute the highest users of university libraries. Undergraduates have a strong desire on electronic based retrieval systems such as the internet and OPAC (Ebiwolate, 2010).

Mutshenea (2008) reported that "in a university library with OPAC system, undergraduates constitute the most frequent users especially in electronic based

libraries" (p.18). Consequently, a university library with OPAC will expectedly be definitely over- flooded by undergraduates searching for information materials using OPAC system. However, the rate of OPAC use shows its worth in the library. Kumar and Vohra (2011a), as cited in a study by Onuoha, Umahi and Bandele (2013) on OPAC use by the undergraduates and faculty members of Panjab University Library, Chandigarh, revealed that out of 190 respondents 7941.57%) used the OPAC very frequently. Majority of the respondents 111(55.42%) consulted the OPAC occasionally, rarely and not at all.

Methodology

This study adopted a survey research design. The target population for the study was 220,750 which consisted of undergraduates of universities (federal, state and private) located in South West, Nigeria that have functional OPAC in their university libraries. A sample size of 1422 respondents (undergraduates) was used for the study. This figure is considered adequate because Krecie and Morgan (1970) stated that, for a population of 200,000 a sample size of 384 can be used. This means a sample size of 1422 respondents (undergraduates) drawn from a population of 220,750 in this present study is considered adequate. The multi-stage sampling technique adopted for the study, was done through stratification. The levels of stratification in the study are: types of universities, faculties as well as departments in universities under study and different levels of the undergraduates in these universities. Questionnaire was used to collect the data for study. Frequency, Mean and ANOVA statistical techniques where used to analyze the data for study.

Results and Discussion

Answering of the Research Questions

The results of the three research questions raised are presented in this section.

Research Question 1: What are the ICT skills possessed by undergraduates in the university libaries for the OPAC use in South -West, Nigeria?

The data in Table 1 is used to answer research question one.

Table 1: ICT Skills Possessed by the Undergraduates in the Universities in South West, Nigeria.

ICT Skills and some DATO to eight sill revewo	Mean Score
- Use the menu bar	3.61*
- Print a document	3 42
- Open, close and resize window:	3.62*
- Retrieve information without any tibrarian's nelp	3.52*
- Save file to a flash or to specific location on the OPAC	3.43
- Make a new folder	3.54*
- Navigate the OPAC	3.36
- Recover lost information during query search	3.58*
- Turn the computer monitor on or off	3.52*
- Use input devices like mouse/arrow key	3.54*
- Use a keyboard:	3.63*
- Open an application	3.47
- Compose and type your query/questions	3.32
- I am very fast when using computer to browse OPAC	3.51*
Aggregate Mean	3.50

Criterion mean = 2.50

The result in Table 1 indicates that the university students in South West, Nigeria possessed the needed ICT skills for OPAC use. Each of the ICT skills had a mean above the criterion mean of 2.50. Also the calculated grand mean (3.50) is larger than the criterion mean (2.50). This implies that the undergraduates possessed ICT skills such as "use the menu bar" (3.61), "open, close and resize window" (3.62). "use a keyboard" (3.63), "make anew folder" and "use input devices like mouse/arrow key" (3.54) respectively, etc. The finding of research question one showed that the undergraduates in the universities in South West Nigeria possesed the ICT skills to use the OPAC. This finding disagrees with that of Salisbury and Ellis (2003) that, professors might believe undergraduates to be computer literate, but most undergraduates cannot demonstrate foundational skills for information research. Gross and Latham (2009) found that undergraduates self-reported that they were computer information proficient, but their knowledge and information searching skills were insufficient. McDonald (2004) concluded that "the current challenges for universities are to ensure that their undergraduates meet a minimum level of computer competency when using new and changing information technology"

Research Question 2: Through what avenues do the u me gardates acquire their ICT skills?

The data in Table 2 was used to answer research question 2.

Table 2: Avenues of ICT Skills Acquisition

	Response						
Acquired ICT Skills	Agree	Disagree					
	No	0/0	No	0/0			
Library orientation	744	52.3	678	47.7			
ICT training schools	840	59.1	582	40.9			
E-library attendants	602	42.3	820	57.7			
Fellow und rgradates	858	60.3	564	39.7			
Textbooks	1,018	71.6	404	28.4			
Course in secondary school	972	68.4	450	31.6			
Self-learning	1,148	80.7	274	19.3			

From Table 2, the respondents indicate the following as their avenues of acquiring ICT skills. They are: Library orientation 744(52.3%), ICT training school 840(59.1%), e- 1 brary attendants 6024(2.3%), fellow undergraduates 858(60.3%), textbooks 1018 (71.6%), course offered by secondary schools 972(68.4%) and self-learning 1148(80.7%). This implies that the avenues for ICT skills acquisition among the undergraduates in university libraries in South West, Nigeria vary. This finding corroborates with Oduronke (2012) and Beebe (2004) pointed out the several avenues through which undergraduates acquire ICT skills.

Research Question 3: To what extent do the undergraduates use OPAC in their university libraries?

The data in Tables 3 and 4 are used to provide answer to this question.

Table 3: Extent of Use of OPAC

0	PAC search types	Mean Score
	Author Search	12.74*
	Accession number search	2 62
	Subject	2.56
	By volume	2.51
4	Barcode search	2.43
	ISSN/ISBN Search	26
	Journal title search	2.92*
	Title search	2.82*
	Series statement search	2.74*
	Ciassmark/call number search	2 2 2 *
\g	gregate Mean	2.66

Criterion mean = 2.50

The result in Table 3 indicates the extent to which the undergraduates in university libraries in South West, Nigeria used OPAC to a moderate extent. This is because; the aggregate means of 2.66 is larger than the criterion mean of 2.50. This implies that the undergraduates moderately used OPAC search types such as: Author search (2.74), Journal title search (2.92), Title Search (2.82), Series statement search (2.74), and Class mark/Call number search (2.83).

Table 4: OPAC Search Strategies

OPAC strategies	Mean Score	
- Boolean Search	2.68	
- Truncation search	2.62	
- Keyword search	2.92*	
- Phrase search	2.77*	
- Expert/advance search	2.81*	
- Simple/basic search	3.00*	
Simple adjacent search	2.76	
Browsing capability search	2.83*	
Proximity search	2.68	
Aggregate Mean	2.79	

Criterion mean = 2.50

The result in Table 4 shows that undergraduates in university libraries in South West, Nigeria moderately used OPAC search strategies such as: keyword search (2.92), phrase search (2.77), expert/advance search (2.81), simple/basic search (3.00) and browsing capability search (2.83). The mean scores indicated that a variety of OPAC search strategies used by the under graduates.

The finding in research question three shows that undergraduates in universities located in Scuth West, Nigeria moderately used OPAC search types such as: author search (2.74), journal title search (2.92), title search (2.83), series statement search (2.74), and class mark/call number search (2.83). The result in Table 5 indicated that undergraduates in universities located in South West, Nigeria moderately use OPAC search strategies such as: Keyword search (2.92), phrase search (2.77), expert/advance search (2.81), simple/basic search (3.00) and browsing capability search (2.83). The mean scores showed that they are a variety of OPAC exploration strategies used by the undergraduates. This finding supports that of Kumar and Vohra (2011) that OPAC offers vast capacities and capabilities for searching such as advance search, keyword search, Boolean search and truncation as equated with the traditional considerable time in searching for a locument. This finding corroborates with Hildreth (1984), Chrisman, Diller and Halbridge (2009) who asserted that the undergraduates use several search types.

Testing of the Research Hypotheses

The results of the hypotheses that were tested and formulated and in this study are presented in this section.

Ho1: There is no significant difference in the ICT skills possessed by undergraduates and their OPAC use in the university libraries in South West, Nigeria

The one-way AI OVA to test the hypothesis was used.

Table 5: One-way Analysis of Variance (ANOVA) on the Differences in ICT Skills Possessed by Undergraduates for the use of OPAC in the Universities in South West, Nigeria

Source of Variation	Sum of Square	Di	Mean	F-cal.	F-it.	Sig. Level	P- value	Decision
Between Groups WithinGroups	26,043		0.265	49.159	2.99	0.05	0.000	Highly Significant
		7.42.1						

Table 5 shows the test of significant difference in ICT skills possessed among undergraduates and their OPAC use in the federal, private and state universities in South West, Nigeria. The test outcome shows that the F-calculated value of 49.159 is far greater than the F-critical value of 2.99, indicating that the null hypothesis is rejected. This result revealed that undergraduates vary in the possession of ICT skills on OPAC use in the universities.

Further analysis was done using the Scheffe post-hoc analysis to determine where the significance lies. From the analysis, the study indicated that ICT skills possessed by undergraduates for OPAC use in the federal universities (3.5092) was higher than the level ICT skills possessed by undergraduate in state universities (3.03863) while the ICT skills possessed private university students (3.8515) was higher than those possessed by those in the federal and state. It can be concluded, from the analysis that undergraduate students in the private universities were more ICT skillful than the other categories of universities.

Table 6: Scheffe Post-Hoc Analysis showing Where the Significant Differences
Occurred

Scheffe ^{a,b}				
University		Subset f	or alpha =	0.05
Туре	N	1	2	3
State	558	3.3863		
Federal	712		3.5092	
Private	152			3.8515
Sig.		1.000	1.000	1.000
Means for displayed.				absets are

The finding of hypothesis one shows that there were significant differences in the ICT skills possessed by undergraduates for the use of OPAC in the federal, state and private universities in South West, Nigeria. The finding agrees with Education Testing Service (2007) which revealed that ICT skills or literacy ranges from use of technology in everyday life to use in performing computer tasks. However, the study concluded that almost all of them want to improve their computer skills. The segmental difference lies in the private universities. This may not be unconnected with the fact that undergraduates from private universities are usually from standard primary and secondary schools and are well exposed to innovations in the ICT world (like OPAC). This validates this hypothesis that the

level of ICT proficiency varies from one individual/ university to the other. This may also be as a result of the environment, level of exposure, available facilities, etc.

Ho₂: There is no significant difference among the undergraduates in the federal, private and state universities on OPAC use

To test this hypothesis, the one-way ANOVA was used at 0.05 level of significance

Table 7: One-way ANOVA on the Differences among the Undergraduates from Federal, State and Private Universities on the Extent to which They Use the OPAC

Source of Variation	Sum	of Df	Mean Square			Sig. Level	P- Value	Decision				
Between Groups	7.322	2	3.661	9.249	9.249	9.249	9.249	9.249	9.2492	9.249 2.99	9.249 2.99 0.05 0.000	Highly Significant
Within Groups	561.648	1419	0.396					orgimeant				
		1421										

Table 7 slows the test of significance difference among universities' undergraduates on the extent to which OPAC is put to use in universities in South West, Nigeria. The test result indicates that the F-calculated value of 9.249 is greater than the F-critical of 2.99. Threfre, the null hypothesis is rejected. This means that a significant difference exists among university undergraduates from federal, state and private on the extent to which they explored the OPAC in the ir university libraries. Further analysis was employed using the Schaffer post-hoc analysis to determine where the significance lies. From the analysis, it indicated that the significant different lies in the federal universities (2.7786), meaning that undergraduates in federal universities used OPAC more, when compared to those in private and state universities. This was closely followed by those in private universities (2.7535) and then the state universities (2.6293). This result is tabulated in Table 8.

Table 8: Scheffe Post-Hoc Analysis Showing Where the Significant Difference Occurred

Use of OPAC						
Scheffe ^{a,b}						
University	N	Subset for alpha = 0.05				
Туре		1	2			
State	558	2.6293				
Private	152	2.7535	2.7535			
Federal	712		2.7786			
Sig.		.051	.885			
Means for displayed.	groups i	n homoge	neous subsets are			

The finding from hypothesis two shows that there is significant difference among the federal, state and private university undergraduates on the use of OPAC in the university libraries. This result is simply because undergraduates from federal universities were more in this study. Observation has shown that, in the case of most private universities, they are run like secondary schools. Undergraduates are compelled to observe certain rules such as library hour, reading hours, etc. Also, most undergraduates in private universities and sometimes federal universities attend first grade secondary schools. And by so doing, are already equipped with ICT skills and are used to modern technologies such as OPAC, unlike those of the state universities. However, the result in the study show that undergraduate of Federal universities use OPAC higher than state and private universities because they are more in this study.

Findings

The following findings were made in the study:

- 1) The undergraduates in university libraries in South West, Nigeria possessed the ICT skills to use the OPAC. They are: the use of a mouse, open, close and resize windows, use the menu bar and power/shutdown correctly.
- The undergraduates in the university libraries in South West, Nigeria acquired their ICT skills through: self-learning, textbooks, course in secondary school and ICT training.

- 3) The undergraduates in university libraries in South West, Nigeria moderately used OPAC search types: author search, journal title search, title search, series statement search, and class mak/call number search.
- 4) The undergraduates in university libraries in South West, Nigeria moderately used OPAC search strategies: keyword search, phrase search, expert/advance search, simple/basic search and browsing capability search.
 - 5) There was significant difference in the ICT skills possessed by undergraduates for the use of OPAC in the state, federal and private universities in South West, Nigeria. The significant difference shows that undergraduates in private universities were more ICT skilled than those in federal and state universities.
- 6) There was significant diffrence among the federal, state and private university undergraduates on OPAC use in the university libraries. The significant differences show that undergraduates from federal universities used OPAC more than their private and state universities counterparts.

Conclusion

The study explored ICT skills and use of Online Public Access Catalogue (OPAC) among undergraduates of the universities libraries of South West, Nigeria. From the findings of the study, it is hereby concluded that most of the undergraduates possessed the needed ICT skills to use the OPAC in university library such as: use a mouse, open, close, and resize windows, use the menu bar and power/shutdown correctly. These ICT skills are acquired by undergraduates through the following avenues: self-learning, textbooks, course in secondary school and ICT training.

Recommendations

Based on the findings and conclusion of this study, the following recommendations are made:

- 1. To facilitate optimal utilisation of OPAC, university libraries in the South West of Nigeria should organise user education programmes for undergraduates on the awareness, techniques and strategies in retrieving information from the OPAC. This instruction programme will enhance undergraduates' knowledge and basic skills for searching
- 2. To equip undergraduates in South West universities with necessary information Search skills, government should formulate and implement policies that will

incorporate "introduction to computer" as a subject in the curriculum of secondary school students.

- 3. Government and university management in the area studied should provide adequate funds to enable libraries of universities fund all OPAC ventures because they are capital intensive, such as acquiring more systems, purchase of good software, etc.
- 4. OPAC should have more user friendly online features in its programming thereby helping to minimize challenges in use of OPAC.

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