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**ASSESSMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY
SKILLS IN OPERATION AND SERVICE DELIVERY BY PARA PROFESSIONALS OF
UNIVERSITY OF JOS LIBRARY.**

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ABSTRACT

In this research work "Assessment of Information and Communication Technology Skills in Operation and Service Delivery by Para Professionals of University of Jos Library" is to assess the information and communication technology skills in operation and service delivery by para professionals of University of Jos Library. The objective is to find out the type of Information and Communication Technology resources available for use by para professional staff in the library; to ascertain the level of understanding of Information Communication Technology by the para professionals in the library; to assess the level of utilization of the Information Communication Technology skills acquired by the para professionals in the library in performance of their daily activities; and to determine the challenges faced by para professionals in the library in utilization

of the acquired Information Communication Technology skills. A Survey research methodology was adopted. Questionnaire was the preferred instrument for data collection. Para Professional Staff of University of Jos Library formed the population of the study. A stratified sampling technique was used and 80 people were sampled. The study shows that university of Jos library is equipped with some Information Communication Technology facilities which include: computers, photocopier, projectors, television, printers, etc. Majority of the staff have access to these facilities. They use these facilities mainly for performing services in the library and for social networking. Lack of computer literacy, power failure, insufficient Information Communication Technology facilities, management reluctance, formed the major challenges of accessing and using Information Communication Technology facilities in university of Jos library. It was then suggested that tertiary institutions should allocate a reasonable budget to libraries to enable them acquire the needed Information Communication Technology facilities, and also to ensure constant power supply in the institutions. This research show that majority of the Para Professionals in University of Jos Library are moderately computer literate.

KEYWORDS: INFORMATION COMMUNICATION TECHNOLOGY, PARA PROFESSIONAL, LIBRARIAN, LIBRARY.

1.0 Introduction

Information and Communication Technology (I.C.T.) skills is very important to national growth and development; therefore, Nigeria's quest for continuous development cannot be achieved without the use of I.C.T. skills in the daily operations and service delivery by para professionals in our tertiary institutions.

Information and Communication Technology consists of hardware, software, networks, and media for collection, storage, processing, transmission and presentation of information (voice, data, text, images), as well as their related services (Owusu-Ansah, 2013). Information and Communication Technology can also be aptly seen as forms of technologies that are used to create, store, share or transmit, and exchange information. It is an electronic and computerized devices associated with human interactive materials that enable the user to use them for wide range of teaching and learning in addition to personal use.

Information and Communication Technology skills are those procedures and needed knowledge which enables a given work to be perform in an information environment. The 21st century librarian needs special skills to meet up to the ever rising change in which the world is

experiencing. The Librarian need to be able to analyse and process different kinds of information resources; activating and finding potential value hidden in any information; providing added-value information products at the right time and right place; Finding the right users for information and provide personalized and tailored services. The use of I.C.T. skills in daily operations and administration of service by para professionals in the library is a new technique that dominates the conventional method. This is because, most of the libraries in tertiary institutions today subscribe to electronic resources, and so the conventional resource patronage is gradually fading away. The emergence of the digital age has seen the libraries automate their core operations like circulation, serial and cataloguing. Libraries have also created website which facilitate access to their local resources outside the library.

Linsk (2014) defined a para professional as a person without professional training, to whom a particular aspect of a professional task is delegated. But, in the course of executing the task, the para professional can expand his/her knowledge and gain education on the task for better execution of the task. The library as an organization has adopted the use of para professionals in service provision. (Doe, 1961) strongly supported the use of library technicians to help alleviate problem related to the shortage of librarians. Technicians are our valuable para professionals with frontline skills but less big picture knowledge (Hill, 2014). Increasingly complex duties are being assigned to library para professionals (Makinen and Speer, 1993). Para professionals are trained to be able to carry out most user related services of the library. (Hill, 2014) noted that para professional librarians provide general support in libraries such as, helping patrons with locating reference materials, and re-shelving books. Some, paraprofessionals have gained the academic training needed which help them have wider understanding of how the library operates. These paraprofessionals have acquired Diploma, Higher National Diploma, and Degree in Librarianship. The certificate(s) obtained enable them understand better what the library is all about. There are varieties of I.C.T. skills available for use in the library. Some commonly required skills for para professionals in the library; Digitization, Browsing, Microsoft Excel, Corel draw, Microsoft Word, Use of a Database etc.

1.2 Statement of the problem

Information and Communication Technology skills among para professionals in the library is tasking and required full time support from government and other managers in the educational sector. Also, I.C.T. facilities are said to be very expensive so it is difficult for institutions to afford facilities that will go round all the non-academic staff. Some of the problems include; Lack of

finance to acquire the systems (computers), Installation of programs and software requirement, Source of power, Computer literate instructors, How to secure and manage the internet facilities. etc.

However, the question here is how to solve or manage these challenges. There is a need to stand up to the challenges and system of learning I.C.T. skills among para professionals in the library of University of Jos. Presently, Nigeria is improving in embracing and training of para professional staff in the library with the necessary skills which will assist in proper delivery of their duties. The use of I.C.T. facilities in a library situation at colleges and university level entails that para professional librarians should be conversant with I.C.T. skills at all levels. So it is appropriate for I.C.T. skills to be impacted in para professional librarians. World Bank equally observed “low level of literacy education is highly caused by lack of awareness about the capabilities of technology based skills.”

To ascertain the use of I.C.T. among para professionals in the library, it will involve the attitudes of I.C.T. facility managers, willingness of staff in acquiring the skills, and commitment of teachers.

1.3 Objective of the study

The objectives of the study are as follows:

1. To find out the type of Information and Communication Technology resources available for use by para professional staff in University of Jos Library.
2. To ascertain the level of understanding of I.C.T. by the para professionals in the library
3. To assess the level of utilization of the I.C.T. skills acquired by the para professionals in the library in performance of their daily activities.
4. To determine the challenges faced by para professionals in the library in utilization of the acquired I.C.T. skills.

1.4 Research questions

The study will answer the following research questions:

1. What types of I.C.T. facilities are available for use by para professional staff in the University of Jos Library?
2. What is the level of understanding of the I.C.T. skills acquired by the para professionals in the library?
3. To what extent do the skills acquired by the para professionals in the library help them in carrying out their task?

4. What are the challenges faced by the para professionals in the application of the acquired I.C.T. skills in their day to day task?

Review of related literatures

1.5 Information and Communication Technology Resources Available in University

Libraries

Currently, the academic libraries are in the vanguard of using the vast array of modern media and other technologies. The development and availability of Information and Communication Technologies (I.C.T.) in University Libraries have today not only increased and broadened the impact of information resources at their doorsteps, but also placed more emphasis on effective and efficient services. Their applications in libraries, commonly known as library automation, have indeed continued to ease and promote quick and timely access to and transfer of information resources that are found around the globe.

The computer can be referred to as the backbone, nucleus or hub of I.C.T. application. Mugivane (2014) referred to a computer as an electronic device that accepts user input (data) and processes it under the influence of a set of instructions referred to as programs to produce the desired output generally referred to as information. In virtually all I.C.T. applications, the computer is interfaced with other devices in order to function effectively.

The above definition pointed out that computers are capable of producing the result the way a librarian will want it. Secondly, it indicated that computer perform these operation using define code of instructions which can be manufacturer made or user made. The use of computers in tertiary institution libraries has ease tedious manual operation perform by the Para Professionals. Thereby reducing the cost of employing more staff, ease operation, save time and improves efficiency. Oketunji (2007) has identified the following as the available technologies in most Nigerian academic institutions libraries: personal computer application, CD-ROM searching, Tele facsimile, Networks, Electronic copying, Email and internet.

Iwu (2003) categorized I.C.T. available in academic libraries into the following:

- i. **Sensing technologies:** This equipment gathers data and translates them into a form that can be understood by the computer. These include sensors, scanners, keyboard, mouse, electronic pen, touch or digital boards, barcode sensors or readers, voice recognition system, etc.
- ii. **Communication technologies:** These are equipment that enables information to be transferred from the source to user. It also tries to overcome natural barriers to information transfer like speed

and distance some of these include: facsimile machines (fax), telecommunication system, telephone, electronic mail, teleconferencing, electronic bulletin boards, etc.

iii. **Display Technologies:** These are output devices that form the interface between sensing, communication and analysing technologies and human user. They include: computer screen, printers, television, etc.

iv. **Analysis technologies:** These are the technologies that help in the investigation or query of data, analysis and in depth query for answers for simple to complex phenomena in research procedures. A complete set of a computer system could be a micro, mini, mainframe or super scamper.

v. **Storage Technologies:** These technologies facilitate the efficient and effective storage of information in a form that can be easily accessed. They include: magnetic tapes, disks, optical disks cassettes, etc.

Other I.C.T. facilities available in academic institutions include digital cameras, scanners, printers, photocopiers, microforms, package games and simulations, television for the use of video cassette and video disc. And the para professionals in the Library are expected to be equipped with these skills.

1.5.1 The development of I.C.T. skills in Nigerian Academic Libraries

The term I.C.T. is an abbreviation for the words; Information and Communication Technology. It was coined as a result of the diverse communication systems which facilitates the sharing and dissemination of information on network. I.C.T. as a concept has been viewed by many scholars in different form. Information and Communication Technology skills is seen by Nwagwu (2001) as technologies use for information storage and retrieval, which is developed partly, to determine ability, and to establish a synergy interaction between technological innovation and human value.

There are developments in Nigerian education sector which indicates some level of I.C.T. skills application. The federal government of Nigeria, in the national policy on education (2004), recognized the prominent role of I.C.T. skills in modern world, has integrated I.C.T. into education in Nigeria. To actualize these goals, the education documents states that, government will provide basic infrastructure and training at primary, secondary, and tertiary level of education. Bemah (2002) stated that, the exponential growth in information and knowledge, and the corresponding

increase in user needs have stipulated a greater degree of technological inventions and strategies towards the management.

Equally in 2000, Nigeria developed a policy on information and communication technology with the aim of making Nigeria an information technology adapted country in Africa, and also a leading player in the use of I.C.T. as an implement for sustainable development and global competitiveness. Also, in 2006, the federal ministry of education launched an I.C.T. driven project known as school net (www.snnng.org) as reported by Adomi (2005), this was all intended to equip all tertiary institutions and secondary schools in Nigeria with I.C.T. facilities. Again, the development of I.C.T. in tertiary institutions in Nigeria is traceable to June 2003, at the African summit of the world economic forum held in Durban, South Africa, by the new partnership for African development (NEPAD), in which I.C.T. equipment like; computers, radio, television, telephones fax machines, scanners, digital cameras, internet were launched in African countries including Nigeria, Aginam (2006). Minishi-Majanja (2007) said the significance of governmental intervention is exhibited in the growth of the I.C.T. infrastructure, which provides a platform for institutions and their libraries to increase their I.C.T. diffusion.

There is indeed a paradigm shift in the traditional concept, as well as the operations and services of libraries. The training and education of library and information science institutions have improved, such that librarians and information scientists being produced today are the ones that should be capable of applying the skills of I.C.T. to their professional practice. The information sources in libraries are no longer limited to books and journals but also CD-ROM, audio and video resources. Libraries now subscribe to electronic versions of information sources such as e-books, e-journals and e-maps. Publishing and distribution of books and journals are being done nowadays electronically with the development of the internet and the possibility it affords of accessing information held by libraries all over the world (Aina, 2004).

According to the studies conducted by Esey, Jimada, Hussaini, Alkasim, and Mahadi, (2014) on the topic: Professional Training Requirements for Librarians of the Mtn-Net Library of Kashim Ibrahim Library, Ahmadu Bello University Zaria revealed that there is insufficient knowledge and skills for the academics librarians as well as lack of web technology and automation trainings.

1.5.2 Information and Communication Technology Skills Among Para professionals in Nigerian Academic Libraries

Information and Communication Technology skills among para professionals are used to facilitate information storage and access for both the staff and the students. Para Professionals require these skills in order to effectively provide these services. Teachers need I.C.T. skills to enable them in job designing and accomplishment of their primary duties in targeting the desired learning outcome. Goshit (2006). According to Zhou (2005), training the librarian for the 21st century should focus on developing and the acquisition of skills to be able to select, acquire, preserve, organize and manage collection; establish friendly user interface over network; Set up relative standards and policies for a library; design, maintain, transmit, add- value to information products; protect the intellectual property of authors and to insure information security; the scholar also advocated for been able to analyse and process different kinds of information resources; activating and finding potential value hidden in any information; providing added-value information products at the right time and right place; finding the right users for information and provide personalized and tailored services.

The I.C.T. skills among para professionals as asserted by Adomi and Anie (2006) includes: Microsoft word processing, Microsoft word excel, Power point, Corel draw, Information processing, Database building and management, Use of multimedia presentation, Social networking and communication, Web design and navigation, Use of search engines e.t.c.

Some of the Information and Communication Technology Skills among para professionals are: Digitization, Library Automation and Retrospective Conversion of Information Resources.

Tertiary education is essential to the creation of human capital in any country. The need for I.C.T. in Nigerian tertiary institutions libraries cannot be over emphasized in this technological driven age, every point or organization requires I.C.T. skills competence to survive.

I.C.T. skills among para professionals are outline according to Refell and Whitworth (2002) as: Spreadsheet, Word processing, Database, Book keeping, Stock taking, and Clerical and administrative work.

I.C.T. skills among para professionals are viewed by Enuku and Enuku (2000) as: technologies used, in which para professionals have access to tools that adjust to their work style and span, and provide valuable and immediate feedback for literacy enhancement.

1.6 The Challenges of I.C.T Skills in Nigerian Tertiary Institutions Library.

Information and Communication Technology skills in Nigerian tertiary Institution Libraries faces a lot of challenges. Some of these challenges reported by scholars include;

poor or limited infrastructures. Research confirms that I.C.T. development and application are not well established in Nigerian tertiary institutions libraries due to poor infrastructural development of information, Adomi and Anie (2006). Also, Aginam (2006), discovered that, insufficient number of computer and peripherals devices inhibit deployment of I.C.T. skilled.

The following are the challenges of I.C.T. skills in Nigerian tertiary institutions libraries, as observed by Refell and Whitworth (2002): Poor Information Infrastructure, Inadequate Power Supply, Poor I.C.T. policy and project implementation strategy, Inadequate I.C.T. manpower (teachers), High cost of I.C.T. facilities, Limited school budget, Lack of maintenance culture, Lack of interest in I.C.T. skills acquisition on the part of the para professionals, Poor management on the part of the school administrators and government. Resistance to change from traditional pedagogical methods to more innovative, technology-based teaching and learning methods, by both students and academics, Inadequate I.C.T. infrastructure including Computer hardware and software and bandwidth/access. Etc.

1.7 Research methodology

The researchers present logical approach to all the nature of questions to ask to assist in the assigned mission of this project. Most facts came through the distribution of questionnaires. This work is a survey of the “Assessment of Information and Communication Technology Skills in Operation and Service Delivery by Para Professionals of University of Jos Library.”

This research work is restricted to para professionals in University of Jos Library. The researchers will adopt the conventional approach of the survey design. This survey help the researchers to choose their respondent at a short possible time and in getting feedback, and it allowed the researchers to collect, analyse and interpret data based on the chosen population.

The population of the study consists of all the para professionals in University of Jos main Library which are 92 in number. The sample size for this study is eighty (80) respondents. The procedure for the sampling technique is a convenient sampling, which is a sampling technique that involves selecting subjects based on availability and researchers' convenience. This method was adopted due to the large size of the population intended for the study. The method involves gathering of data about a target population from a sample and generalizing the findings obtained to the population since every respondent cannot be reached easily. It describes situations as they exist in the natural setting. It's other characteristics are that it gathers data at a particular point in

time with the intention of describing the existing conditions and it determines relationship that exist between specific events.

The instrument to be used for data collection for this research work is questionnaire. It enabled the researcher to tap factual information from the respondents. The questionnaire was divided into two sections, section one contains the Socio-Demographic Data, while section two contains the Questions to be answered.

The research questionnaire was distributed in face to face contact. (That is, the researcher visited the institution and administered the questionnaire). They were collected immediately the respondents had finish answering the questions. This is so important because, the researcher tested the para professionals without any external influence. This helped the researcher to know how the acquired I.C.T. skills by the para professionals are used in carrying out their daily activities and the challenges as well as how to solve such challenges.

In scrutinizing the data obtained from the distributed questionnaires, the researcher used simple percentile method. The simple percentile is used to understand one variable at a time. Tables were used for summarizing and clarification of data for proper accountability and understanding.

1.8 Data Presentation, Analysis and Discussion.

This point presents data collected, analysis, and discussion of the findings arising from the analysis.

Response Rate

In conducting this research work, 80 questionnaires were distributed by the researcher to University of Jos Library and 79 were duly completed and returned. This shows that there was response rates of 98.8%. Reason for the high response was that, the researchers administered the questionnaires by themselves and waited for the respondents to fill and return back the questionnaires before proceeding.

Table 1: Response Rate

This table shows the rate at which the questionnaires were filled and dully submitted.

Unit	NO of Questionnaires per unit	NO of Questionnaires Administered	No of Questionnaires Returned	Percentage (%) of questionnaires returned

Cataloguing	14	14	14	17.7
Systems	13	13	13	16.4
Serials	5	5	5	6.3
Porter	10	10	10	12.6
Collection development	14	14	14	17.7
Media	6	6	6	7.5
Circulation	8	8	8	10.1
Order	9	10	9	11.4
Total	79	80	79	98.8

Table 1 shows that 14(17.7%) of the questionnaires was distributed in cataloguing Unit. 13(16.4) of the questionnaires was distributed in the systems Unit. 5(6.3) was distributed in the serial unit. 10(12.6) of the questionnaires was distributed in porters unit, 14(17.7) was distributed in the collection development Unit. 6(7.5) was distribute in the media Unit. 8(10.1) was distributed in the circulation Unit. 9(11.4) was distributed in the order unit.

Data Analysis

SOCIO-DEMOGRAPHIC DATA

Table 2: Socio-Demographic Data

This table shows the socio demographic information of all the respondents

Sex	Frequency (F)	Percentage (%)
Male	50	63.3
Female	29	36.7
Total	79	100
Age (in years)		

16-20	-	-
21-25	-	-
26-30	31	39.3
31& above	48	60.7
Total	79	100
Units		
Cataloguing	14	17.7
Systems	13	16.4
Serials	5	6.3
Porter	10	12.6
Collection development	14	17.7
Media	6	7.5
Circulation	8	10.1
Order	9	11.4
Total	79	100

Table 2 above shows that 50(63.3%) of the respondents are males while 29(36.7%) are females. 31 (39.3%) of the respondents fall within the age range of 26-30, while 48(60.7%) fall within the age range of 31 and above. 14(17.7%) of the respondents are in cataloguing unit, 13(16.4%) are in system unit, 5(6.3%) are in serials, 10(12.6%) are in porters unit, 14(17.7%) are in collection development unit, 6(7.5%) are in media unit, 8(10.1%) are in circulation unit, while 9(11.4%) are in order unit.

Male para-professionals dominates I.C.T. world in this library. Majority of the para-professional that use I.C.T. facilities in University of Jos Library fall within the age bracket of 31 years and above. Cataloguing, systems and circulation units have the highest respondents.

SECTION B

1. ICT FACILITIES AVAILABLE IN THE LIBRARY

The researcher asked a question to be certain of the availability of I.C.T. facilities in University of Jos Library, and the responses are below tabulated:

Table 3: ICT Facilities Available in the Library

This table shows the different I.C.T. facilities available in the library;

FACILITIES	FREQUENCY (F)	PERCENTAGE (%)
Computers	79	24.5
Projectors	72	22.4
Scanners	67	20.8
Digital cameras	20	6.2
Photocopier	72	22.4
Stylus pen (others)	1	0.3
Television (others)	4	1.2
Microform (others)	6	1.9
Satellite (others)	1	0.3
Total	322	100

Table 3 above shows that the available I.C.T. facilities comprises of 79(24.5%) computers, 72(22.4%) projectors, 67(20.8%) scanners, 20(6.2%) digital cameras, 72(22.4%) photocopiers, 1(0.3%) stylus pen (others), 4(1.2%) television (others), 6(1.9%) microform (others), and 1(0.3%) satellite (others).

It can be deduced from Table 3 that computers, projectors, photocopiers, scanners and digital cameras are the most pronounced I.C.T. facilities available in University of Jos Library for daily service delivery by para-professional librarians. This implies that I.C.T. are available in these, even though they are simple and common I.C.T. facilities. This result has agreed with an assertion made by Oketunji (2007) that, the available technologies in most Nigerian academic institutions are:

personal computer application, printers, photocopiers, scanners, CD-ROM searching, Tele facsimile, Networks, Electronic copying, Email and internet.

2. I.C.T. SKILLS OF PARA-PROFESSIONALS

Table 4: I.C.T. Skills of Para-Professionals

This table shows the different I.C.T. skills possessed by the para professionals in University of Jos Library;

SKILL	FREQUENCY (F)	PERCENTAGE (%)
Microsoft word processing skills	70	32.1
Internet searching	69	31.7
Technical skills (maintenance)	21	9.6
Using Corel draw	25	11.5
Software design skills	3	1.4
Website design skills	16	7.3
Digitization skills	14	6.4
Total	218	100

Table 4 above shows that 70(32.1) of the respondents have Microsoft word processing skills, 69(31.7) have internet searching skills, 21(9.6) have technical skills (maintenance), 25(11.5) have Corel draw skills, 3(1.4) have software design skills, 16(7.3) have website design skills while 14(6.4) have digitalization skills.

It is clear from Table 4 that the respondents have elementary I.C.T. skills. It is safe to conclude Microsoft word processing skill, Internet searching, Corel draw and Technical skills are the most popular I.C.T. skills possessed by para-professional librarians in University of Jos Library, Plateau state. This implies the para-professional cannot be effective in tasks that require advance I.C.T. skills, unless they are adequately trained. This result is, therefore, a confirmation of the stand point of Ocholla (2003) that the job markets requires additional and new skills such as computer literacy,

word processing, spreadsheets, database construction and management, and in fact general I.C.T. competencies.

3. THE LEVEL OF I.C.T. SKILLS

Table 5: The level of I.C.T. skills

This table shows the extent to which the Para Professionals are ICT skilled;

LEVEL	FREQUENCY (F)	PERCENTAGE (%)
Highly skilled	21	28
Averagely skilled	45	60
Partially skilled	4	5.3
Under skilled	5	6.7
Total	75	100

Table 5 above shows that 21(28.0%) of the respondents are highly skilled, 45(60.0%) are averagely skilled, 4(5.3%) are partially skilled while 5(6.7%) are under skilled.

It made it obvious that majority of the respondents are highly and averagely skilled. It is therefore healthy to reach an informed inference that majority of the para-professional librarians in University of Jos Library, Plateau State, are highly and averagely skilled. This implies that the available I.C.T. available in this library can be maximally explored for the sake of timely service delivery and daily operations in the library.

4. METHODS OF I.C.T. SKILLS ACQUISITION

Table 6: Methods of I.C.T. skills acquisition

This table shows the different methods in which the para professionals acquire I.C.T. skills;

METHOD	FREQUENCY (F)	PERCENTAGE (%)
---------------	----------------------	-----------------------

Personal effort	50	44.6
Through Workshops	21	18.8
I.C.T. courses in school	40	35.7
Scholarship (others)	1	0.9
Total	112	100

Table 6 above shows that 50(44.6%) of the respondents acquired their I.C.T. skills through personal effort, 21(18.8%) through workshops, 40(35.7%) through I.C.T. courses in schools while 1(0.9%) acquired through scholarship (others).

Arising from Table 4:5, it is clearer that the respondents acquire I.C.T. skills through personal effort, I.C.T. courses offered in schools and workshops. Consequently, it is very factual to draw a conclusion that para-professional librarians in University of Jos Library, Plateau State, gain I.C.T. skills through their effort, I.C.T. courses and workshop. This implies that the library management has not really done much in the aspect of organizing I.C.T. skills acquisition workshop (21%) for these para-professionals. It could be that attention is given to professional librarians more than them. This shows lop-sidedness in manpower development. Aina (1992) did some studies on human resources development and employee training. He concluded that entry into public service an officer is eligible for any or all of the following training programmes: introduction or orientation course, on the job training, in service or refresher training and I.C.T. courses. This means that para-professional librarians should be given equal changes in I.C.T. training like professional librarians.

5. SPONSORS OF I.C.T. SKILLS TRAINING AND ACQUISITION

Table 7: Sponsors of I.C.T. skills Training and Acquisition

This table shows the body responsible in sponsoring I.C.T. skills acquisition;

SPONSOR	FREQUENCY (F)	PERCENTAGE (%)
Government	58	35.8
Non-governmental organizations.	21	13
Individuals	17	10.5

School management	66	40.7
Total	162	100

Table 7 above shows that 58(35.8%) of the respondents said that I.C.T. skills training and acquisition is being sponsored by the Government, 21(13%) said Non-governmental organizations, 17(10.5%) said individuals while 66(40.7%) said it's being sponsored by the school management.

It is not out of place to conclude according to Table 4:6 that I.C.T. skills acquisition is majorly sponsored by the government and school management. This implies that even though the government and school management are sponsoring I.C.T. skills acquisition for staff, para-professional librarians have not benefitted much from it, since their response in Table 4:5 shows that they acquire I.C.T. skills mostly through their personal effort. According to Minishi-Majanja, (2007), the significance of governmental intervention is exhibited in the growth of the I.C.T. infrastructure, which provides a platform for institutions and Library and Information Science departments to increase their I.C.T. diffusion.

6. CHALLENGES FACED IN ACQUIRING I.C.T. SKILLS

Table 8: Challenges faced in acquiring I.C.T. Skills

This table shows the various challenges Para Professionals faced in acquiring I.C.T. skills;

CHALLENGE	FREQUENCY (F)	PERCENTAGE (%)
Lack of funds	74	32.2
Insufficient ICT facilities	47	20.4
Unskilled ICT trainers	42	18.3
Lack of personal interest	22	9.6
Epileptic power supply	28	12.2
Management reluctance	17	7.4
Total	230	100

Table 8 above shows that 74(32.2%) of the respondents said that lack of funds is one of the challenges faced in acquiring I.C.T. skills, 47(20.4%) said insufficient I.C.T. facilities, 42(18.3%) said unskilled I.C.T. trainers, 22(9.6%) said lack of personal interest, 28(12.2%) said epileptic power supply while 17(7.4%) said management reluctance.

The respondents agreed that there are challenges they faced in their quest to acquire I.C.T. skills. Funds, lack of I.C.T. facilities, unskilled I.C.T. trainers, epileptic power supply and lack of personal interest are the major challenges. Ogunleye (1997) stated that poor electricity supply, unfavourable government policy, lukewarm attitude towards the alleviation of the suffering of the academic institutions, high cost of importation of I.C.T. facilities and insufficient fund allocation are some the problems that hinder the training and development of I.C.T. skills in academic libraries and institutions.

5. SUGGESTED SOLUTIONS TO THE ABOVE CHALLENGES

Table 9: Suggested solutions to the above challenges

This table shows the suggested solutions to the above mentioned challenges;

SOLUTION	FREQUENCY (F)	PERCENTAGE (%)
Provision of funds	74	31.8
Acquiring more ICT facilities	48	20.6
Employment of trained staff	42	18.0
Personal motivation	24	10.3
Constant power supply	28	12.0
Adequate Management commitment	17	7.3
Total	233	100

Table 9 above shows that 74(31.8%) of the respondents said provision of funds is one of the suggested solutions to the above challenges, 48(20.6%) said acquiring more I.C.T. facilities, 42(18.0%) said employment of trained staff, 24(10.3%) said personal motivation, 28(12.0%) said constant power supply while 17(7.3%) said adequate management commitment.

The respondents suggested that provision of funds, acquisition of more I.C.T. facilities, employment trained staff and constant power supply should made top priority if daily operation of the library by way of service delivery will be sustained and relevance attained. Ogunleye (1997) stated that poor electricity supply, unfavourable government policy, lukewarm attitude towards the alleviation of the suffering of the academic institutions, high cost of importation of I.C.T. facilities and insufficient fund allocation are some the problems that hinder I.C.T. use in the library.

1.9 Summary of Findings

The summary of the findings are as follows; the researcher examined 80 students in general, consisting of forty from each institution.

1. Observation on the first question proves that I.C.T. facilities are available for use by the para professionals in University of Jos Library. 100% of the para professionals shows that there is availability of I.C.T. facilities in the institution.
2. Question two shows that, 100% of the population possesses at least one I.C.T. skills. As none of the para professionals lacks one skill.
3. Question three shows that majority of the para professionals in the library are I.C.T. skilled. Only about 20% of the staff are below average.
4. Question four shows that, 90% of the para professionals acquire I.C.T. skills through personal effort, 50% acquired through I.C.T. courses in school. This shows that para professionals are to an average extend trained on I.C.T. skills.
5. Question five shows that the government is the main body responsible for sponsoring I.C.T. skills training for the para professionals because the institution is a public tertiary institution. The school management and nongovernmental organizations also go a long way in sponsoring of I.C.T. skills training.
6. Question six shows that the major challenges faced by para professionals in acquiring I.C.T. skills are; lack of funds and insufficient I.C.T. facilities, unskilled trainers, lack of personal interest, epileptic power supply and management reluctance are also stated as some of the challenges of I.C.T. acquisition.
7. Question seven also shows that, the major solutions to the above mention challenges are acquisition of more I.C.T. facilities to the various institutions, provision of funds, constant power supply, and employment and training of I.C.T. teachers.

1.10 Conclusion

Following this research topic: “Assessment of Information and Communication Technology skills in Operation and Service Delivery by Para Professionals in University of Jos Library”

It was observed that the following are the challenges of I.C.T. skills acquisition by para professionals in University of Jos Library, based on the respondents; lack of funds, inadequate I.C.T. facilities, lack of interest, unskilled trainers, epileptic power supply and management reluctance. Based on the findings of this work, it is crystal clear that I.C.T. skill has been successfully introduced to para professionals in University of Jos Library.

The researchers also discovered that the government and school management are the backbone behind the sponsoring of I.C.T. training for para professionals in the library. It is also seen that all the para professionals in the library possess at least one I.C.T. skills.

1.11 Recommendation

Having made in-depth study on this topic, drawn a summarization, and concisely made a conclusion on the findings, the following recommendations are hereby look forward to;

1. Government should constantly train and retrain staff (teaching and non-teaching) on I.C.T. skills acquisition.
2. Government should provide assistance to public and private institutions in providing recent and good I.C.T. facilities.
3. Both government and school administration should give motivations to I.C.T. teachers. It can be through proper payment and by giving the I.C.T. teachers the needed cooperation.
4. Government, school administration, academic community, and capable individuals should complement each other in terms of buying more I.C.T. facilities, security provision, buying generator and fuelling it to ensure smooth operation of the I.C.T. facilities in the library.
5. Para Professionals should put in extra effort in understanding the process of using the I.C.T. facilities available.
6. Para Professionals should also ensure that they constantly make use of the I.C.T. facilities in service delivery.

REFERENCES

Adomi, E. E. (2005). Internet development and connectivity in Nigeria. *Program*, 39(3), 257-268.

- Adomi, E. E., & Anie, S.O. (2006). An assessment of computer literacy skills and professional in Nigerian university libraries. *Library Hi tech news*, 23(2), 10-14.
- Aginam, E. (2006). NEPAD scores students' ICT education in Africa low. *Vanguard*. Available: <http://www.vanguardngr.com/articles/2002/features/technology/tec527092006.html>.
- Aina, L.O. (2004). *Library and Information Science Text for Africa*. Ibadan: Third World Information Service Ltd.
- Bemah, G. B. (2002). *Internet information resources usage among undergraduates at the University of Ibadan (Unpublished thesis)*. University of Ibadan, Ibadan.
- Doe, J. (1961). Gertrude L. Annan, president, Medical Library Association, 1961-62. *Bulletin of the Medical Library Association*, 49(3), 450-454.
- Enuku, U.A., & Enuku, O. (2000). Breaking down the walls: Computer application in correctional/prison education. *Benin Journal of Educational Studies* 12/13(1/2), 64-71.
- Esew, M., Jimada, A., Hussaini, S., Alkasim, H., & Mahadi, A. B. (2014). Skills and professional training requirements for Librarians of the MTN-Net Library of the Kashim Ibrahim Library of the Ahmadu Bello University (A.B.U.), Zaria. *IOSR Journal of Humanities And Social Science (IOSR-JHSS)*, 19(7), 55-60.
- Goshit T. (2006). *Nigeria's need for I.C.T: SP. 259 Technology and policy in Africa*. Retrieved on 02/02/2021 from <http://ocw.mit.edu/NR/rdonlyres/Special-Programs/SP-259Spring-2006/891209EE-E63B-4617-BA9D-7635A63C754B/0/goshit.pdf>
- Hill, C. (2014). The professional divide: examining workplace relationships between librarians and library technicians. *The Australian Library Journal*, 63(1). Retrieved on 17/03/2021 from <https://doi.org/10.1080/00049670.2014.890020>
- Iwu, R. (2003). Integration of information and communication technology in Library operations for effective Library services. *Journal of Educational Media and Technology (JEMT)*, 14(1).
- Linsk, N. (2014). *Strengthening families through para professionals in the social service workforce*. Paper presented at Global Social Service Workforce Alliance Symposium.
- Makinen, R. H., & Speer, S. (1993). Paraprofessional staff: a review and report on current duty assignment in academic health sciences libraries in North America. *Bulletin of the Medical Library Association*, 81(2), 135-140.

- Minishi-Majanja, M. K. (2007). *Integration of ICTs in Library and Information Science Education in sub-Saharan Africa*. A paper presented at World Library and Information Congress: 73rd IFLA General Conference and Council.
- Mugivane, F. I. (2014). *Introduction to computer*. Nairobi: Advatech office supplies Ltd Soin Ground Floor, Westlands.
- Nwagwu, N. A. (2001). *Current issues in educational management in Nigeria*. Benin city: Nigerian Association of Educational Administration and Planning.
- Ocholla, D. N. (2003). An Overview of Information and Communication Technologies (ICT) in the LIS schools of Eastern and Southern Africa. *Edu. Info.*, 21(2-3), 181-194.
- Ogunleye, G.O. (1997). Automating the Federal University Libraries in Nigeria a state of the Art. *African Journal of libraries, archives and Information Science* 7 (1), 71-79.
- Oketunji, I. (2007). *Application of Information technologies in Nigeria: problems and prospects*. A paper presented at 10th Biennial conference of the National Association of Library and Information Science Educators. P.7-20.
- Owusu-Ansah, S. (2013). Application of information and communication technology (ICT): A comparative analysis of male and female academics in Africa. *Library Philosophy and Practice (e journal)*, 1087. Retrieved on 21/02/2021 from <http://digitalcommons.unl.edu/libphilprac/1087>
- Refell, P., & Whitworth, A. (2002). Information fluency: critically examining IT education. *New Library World*, 10(3), 427-435.
- Zhou, Q. (2005). The development of digital libraries in China and the shaping of digital librarians. *The Electronic Library*, 23(4) 433-447.