An Assessment of the Information Literacy Skills of Students in Nigerian Universities

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Abstract - **The Study investigated the information literacy skills of Library and Information Science students in Delta State University, Abraka and Ambrose Alli University, Ekpoma, Edo State, Nigeria. Information literacy instruction is yet to be accorded its correct place in the programmes of study in higher educational institutions. The study adopted a survey approach and a questionnaire structure on a 3-point Likert scale was used for data collection. The sample for the study was 148 (300 level) students. Frequency count and mean statistics were used for data analysis. It was found that the library and information students were information literate, but the researcher was not unmindful of Dunning-Kruger Effect on this finding. Inability of departments to make Information Literacy a compulsory course (100L - final year) for students and inability of lecturers to give students complex take home work (term papers, assignments, seminars) that could be used for the assessment of their information literacy skills were the greatest challenges. The solutions to the problems amongst others are Faculty members and librarians teaching the course should be more pragmatic in course delivery having standards and contemporary trends in mind; and adequate financial provision to libraries in order to enable constant organization of literacy programmes.**
Keywords: **Information Literacy Skills, LIS Students, Skill Assessment, Universities, Nigeria**

I. INTRODUCTION

The modern society has various innovations and developments in technologies, in particular, Information and Communication Technologies (lCTs). These equipments are fueled via information, and through applied knowledge have redesigned /reorganized occupations and skills in almost all areas of the world economy. Ullah and Ameen (2014) noted that there is no denying the fact that the success of students' education in this era depends on their being information literate. Information Literacy (IL) skills - the talent to search for, access, appraise and ethically use information materials from diverse sources in other to satisfy their information needs. Tertiary educational institutions have adopted 'Library Use Education' as means of incorporating IL skills and abilities in students. Through the influence as well as the introduction of ICT in services delivery, transformation started in the way skills are inculcated as well as with a number of ambiguities with respect to the language of the concept. Various nomenclatures like library skills, study skills, library orientation, bibliographic instruction, library instruction, and user education are linked to and used together with the information literacy concept (Uhegbu, 2007). At the moment, library user education had transformed and passed through evolutionary process to a new generally acceptable programme called information literacy education (Skov & Skoerbak, 2003). It is aimed at accommodating the comprehensive skills required by information users in other to enable the utilization of various types of information resources, plus data-bearing entities, whether online or digital and print. Tertiary education students presently encounter daily increase of information resources arising from different sources, and also the question of using these information resources responsibly, efficiently, as well as decently. As a result, the ability/talent to access needed information across various formats and online systems is very necessary. Furthermore, the ability to sift, scan, sort, process and use information generally according to standard is equally very necessary. If students' literacy skills are deficient they are taken care of in information literacy education programme.

The significance of information literacy must be given emphasis and energetically pursued, due to the fact that presently many technological transformations are ongoing. Little wonder then that Mahmood (2016) opined that in this present age students must be more information literate than previously constituted.

According to Ojedokun (2007), information literacy education is yet to be properly accorded its exact position in the school curriculum of higher educational establishments in a number of African countries and Nigeria is not left out. Arising from the foregoing, information literacy skills are yet to be imbibed by some students in Nigerian tertiary education establishments (Issa, Amusan, & Daura, 2009; Rasaki, 2008). Also, the empirical assessment by Madu (2010) in a Nigerian federal university shows that most staff and students studied did not have comprehensible knowledge of what information literacy is all about. As a librarian, the researcher observed that a good number of the students lack information literacy skills, principally as it concerns presentation of ideas, referencing consulted works as well as citations.

In addition, in some tertiary education institutions the teaching of information literacy skills to students is not compulsory for all departments thus neglecting its value and some polytechnics in Nigeria are in this scenario

(Steinrücke, Veldkamp, & Jong, 2020; Mpendulo, Adams, Piennar, & Rawling, 1999). Put differently, it is under the control of individual departments to decide whether to teach it or not. This is different from various surveys worldwide which revealed that lecturers (faculty members) should recognize the importance of information literacy education, and the urgent need to inculcate information literacy skills in students (Rathemacher & Burkhardt, 2000; Leckie & Fullerton, 1999; Ivey, 1994) and that lecturers should in conjunction with librarians deliver information literacy instructions to students (Naveed, & Sharif, 2015).

Therefore, this study intends to:

1. Investigate the information literacy skills of students in Delta State University, Abraka, and Ambrose Alli University, Ekpoma.
2. Ascertain if there are factors affecting the acquisition of information literacy skills by student's library schools.
3. Recommend ways to mitigate the challenges.

II. LITERATURE REVIEW

In Africa information literacy has not been given its due position in the curriculum arrangement in higher education and good number of faculty members do not consider themselves responsible for developing the literacy skills of their undergraduates (Ntui, Ottong, & Usoro, 2012; Rasaki, 2008; Ojedokun, 2007). As a result, these students are disadvantaged in terms of exposure to the world of knowledge and from development and supporting enduring learning. They are also deprived of acquiring the needed skills for access and the right to use information materials in order to be dynamic players in the knowledge economy. The teaching of information literacy instructions to students does not simply involve bibliographic instructions or the skill to make use of various information sources. It also has to do with teaching critical as well as logical thinking skills with respect to the utilization of information, the capacity to generate novel ideas from existing information and previous knowledge and knowledge of documenting information source whether print and online sources (Gross & Latham, 2012).

Information literacy skills are useful to all and sundry, especially students, so as to be successful academically now and in future job chances. Lecturers and other teachers greatly need information literacy skills, to enable them carry out their teaching career successfully. In fact, everybody in the society needs information literacy skills. Information literacy's significance in the educational environment notwithstanding, it developed from library science education practices (Ranaweera, 2008). So the discussion presented is primarily based on the assessment of the literature generated in library and information science (LIS) study areas/disciplines. As previous writings clearly indicate, the concept has evolved to deal with the need generated by information explosion due to swift developments in virtual technologies as well as to assuage

the needs of the knowledge society in terms of responsive and educated work force (Maina, 2014; Andretta, 2005). The Information literacy idea developed from a number of vital library concepts like library instructions, user education, information literacy programmes and bibliographic education. Literacy as the capability to read and write has different variations like library literacy, network literacy, ICT literacy, and media literacy etc., all emphasizing information utilization skills. These variations are Information Literacy, and the word was first used in USA in a 1974 report by Paul G.. Information literacy is not only about having knowledge of information resources; and also not relying on the library as the only starting place.

According to (Ameen & Ullah, 2016), information literacy is also not only about finding information but also of understanding, assessment and utilizing information decently from a range of sources. The concept is not used interchangeably with literacy in ICT. ICT literacy does not give an individual the capabilities to become totally information literate. ICT literacy is a part (under) of information literacy. To become ICT literate only allows the skills necessary to manage the gadgets that facilitate access to electronic-based information resources. In like manner, an individual who is library literate cannot be regarded as being entirely information literate.

This is due to the fact that library literacy is a form of information literacy, and libraries are not the only knowledge information sources available. It is a set of capabilities requiring persons to recognize when information is required plus the talent to find access and use the needed information successfully. It is the sum total of techniques, skills and competences required to locate, recover, analyze and make use of information from a variety of sources and formats including various projected purposes (Steinrücke, Veldkamp, & Jong, 2020). Information is found in libraries, on the Web and Internet, unique interest establishments, multi-media, departments and agencies of government, ministries, and more and more in unfiltered formats. This in turn raises question about their validity and dependability, thus posing challenges to students in terms of evaluation as well as understanding.

Large quantity of these resources will not alone produce more well-versed students exclusive of a corresponding capabilities and skills required to decisively use them. Information literacy is a must survival skill for this century, the chief capability for autonomous study and self-directed leaner and a concept that makes for lifelong learning. According to Ojedokun (2007), the concept is common to all areas of knowledge, education environments and to all levels of education. It assists learners to be abreast with content and to extend their researches, as a result assume greater control of their own learning and becomes more independent. The idea encompasses various competencies. An information literate individual should be capable of recognizing information requirement; establish questions anchored on information needs; be acquainted with the fact

that accurate, appropriate and comprehensive information is the starting point for intelligent conclusion (Mahmood, 2016). Also the individual should be capable of identifying possible sources of information; build up successful search techniques and use it in critical thoughts and solving problems. Furthermore, an information literate individual recognizes the legal, financial and social issues contiguous to the use of information, and to make use of information justly and lawfully, being conscious of issues relating to accurate citations, copyright, referencing, and plagiarism (stealing or illegal copying of others work).

These skills enable students to:

Identify their information needs; Information literacy capabilities/skills are obtained through information literacy education (Igwe, 2010) which is formal, compulsory course of study with a minimum of two credits assign to it in tertiary educational institutions.

1. Put up information seeking techniques to enable access to various types of electronic and print resources both in libraries and virtually. The resources include books, journals, reference resources like encyclopaedia, databases, other periodicals, virtual resources like e-journals, e-books, e- monographs as well as course materials.
2. Access information from diverse sources employing information access apparatus like catalogues, bibliographies, indexes and abstracts, library portals, search guides, web access tools, directories, and Uniform Resource Locators (URL). Use information sources and resources and adhering strictly to rules of citations plus referencing to circumvent consequences of plagiarism as well as to bring their understanding of information principles and copyright challenges.
3. Development of reading habits through the application of reading strategies, and
4. Time management skills etc..

Information literacy is an important skill in this digital age. Educational establishments worldwide are putting up holistic approach to information literacy and are entrenching it in teaching units (Chang, Foo, & Majid, 2014). Several initiatives and approaches on how to teach the course have been developed and implemented in higher educational institutions in the USA, United Kingdom, New Zealand, Australia, Canada, South Africa, Malaysia and the entire Europe (AbduIIah, 2008).

According to Chan (2003), that at the University of Malaya in Malaysia information literacy education was made a compulsory course for all first degree students and the action had positive influence on the of students' academic performance. In order to make the exercise worthwhile, librarians and lecturers in the department must be in charge of teaching information literacy (HoIIister, 2004; Sinn, 2000). A case in point is how faculty members in the department of biological sciences in University of Botswana join forces with librarians in planning timetable, the course curriculum, and materials for delivering information literacy education to learners (Yeboah, 1999). In West African and Nigeria in particular, information literacy education is an important element that is deficient in educational system. In a number of tertiary institutions like universities, polytechnics, coIIeges of education, monotechnics, and institutes of technology and schools of agriculture noted (Ogunmodede & Emeaghara, 2010), there are a number of cases where the information literacy course contents are taught as zero credit courses. And in several others as part of a course on 'Use of English', others as optional course under the control of academic departments to make a decision whether their students will offer it or otherwise, and few of the institutions (departments) as credit-bearing course.

The standard practice in a number of the institutions includes orientation sessions, library tour, and use of library training (Baro & Zuokemefa, 2011), as a replacement for a general information literacy training programme. To liken information literacy education with teaching students how to make use of a library is a short-sighted arrangement (Badke, 2010). Idiodi (2005) discovered parallel lines in the practice of the concept in other nations with time-honored traditions and Nigeria. The findings of Madu (2010) revealed that a good number of staff and students of tertiary educational institutions in Nigeria had no plain picture of what information literacy idea is all about.

Furthermore, Ntui, Ottong & Usoro (2012) in their survey of tertiary institutions in Nigeria reported that the institutions paid inadequate attention to literacy training programmes. Lack of interest on the part of lecturers, students, Institutions' Management; insufficient human resources to take care of information literacy training; and inadequate instructional facilities were noted as challenges to the programme in Nigeria (Baro & Zuokemefa, 2011).

The major obstacles that university libraries encounter in the course of providing information literacy programmes are inadequate human and financial resources, as well as insufficient support by parent institutions with respect to materials and policy backing (Hoi, & Teo, 2017; Kavulya, 2003). The failure of Chief Librarians to bring to the front burner the idea that information literacy is a function of the university library is also an issue that needs addressing. The capability to develop computer literacy skills is hampered by inadequate human resources. In a good number of cases, few workstations are available for library to make use of with no resources to acquire more.

The level of computer illiteracy amongst Nigerian librarians is high and as a result there is insufficient staff to make available ICT instruction for the students. With dearth of institutional policies on information technology, libraries appear to be finding it difficult in mounting successful information literacy training for students and other users.

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III. METHODOLOGY

The assessment adopted survey design method and a study objectives, Section C, factors affecting the acquisition of information literacy skills and Section D is on solutions to the challenges of information literacy. The instrument was adapted from Igwe and Esimokha (2010). The items were structured on a 3-point Likert scale to elicit from the

structured questionnaire as the tool for data collection. The questionnaire was divided into sections - Section A is the demographic data of respondents while Section B deals with students their information literacy skills and factors affecting their acquisition of IL skills. Initially, 150 students were administered the questionnaire but 148 valid copies were used in analysis. Frequency count and mean were used in data analysis.

TABLE I INFORMATION LITERACY SKILLS OF RESPONDENTS

Sl. No.	Item	A	D	Undecided	Mean Scores
1	I have the capability to identify my information needs.	102	40	6	2.65
2	I have the ability to develop successful information search strategies	53	95	-	2.36
3	I can use information accesstools such as indexes, abstracts catalogues and bibliographies.	68	80	-	1.92
4	I am aware of the information services users (students) are entitled to in the university library	100	40	8	2.62
5	I have knowledge of the different forms of information resources such as reference sources, serials, grey literature, and the categories of information they provide inlibraries.	97	51	-	2.67
6	I have knowledge of retrieving information from databases such as HINARI, JSTOR,OARE, e Granary, PERI, AGORA,EBSCOHost.	122	26	-	2.82
7	I have basic computer skills and knowledge of using online tools such as library portals, subject gateways, web directories, uniform resource locators and virtual libraries.	93	55	-	2.62
8	I have knowledge of evaluatingonline/digital information	80	87	11	2.47
9	I have knowledge of legal issuessurrounding use of informationresources such as copyright, plagiarism,And information ethics	71	60	17	2.25
10	I have knowledge of applying readingstrategies like SQ4R (survey, question,read, record, review and recite) for thedevelopment of reading habits	53	80	15	2.26
11	I have knowledge of citation andreferencing of both print-based anddigital/online information resourceswith American PsychologicalAssociation (APA) style	79	60	9	2.47
12	I have the ability to engage in independentlearning	68	69	11	2.75
	Grand Mean score				2.49

Adapted from Igwe & Esimokha (2010)

Table I revealed that with 2.00 as cut off mean score the respondents have the necessary skills, and are information literate. Aside 'I can use information access tools such as indexes, abstracts catalogues and bibliographies'1.92 with mean score below the cut off mark, all other items have mean scores above the cut off mark. The grand mean score was 2.49. The respondents' are to a large extent information literate.

Table II is on factors affecting the acquisition of information literacy skills. The table revealed that with grand means score 2.58 and cut off point 2.00, all the items

were factors inhibiting acquisition of information literacy skills. It is also noteworthy that, 'Inability of departments to make Information Literacy a compulsory course (100L - final year) for students, 2.75' and 'Inability of lecturers to give students take home work (term papers, assignments, seminars) that could be used for the assessment of their information literacy skills, 2.74' were the items with the highest mean scores. In the same vein 'Badly equipped and poor state of information resources in the university libraries' 2.41 was the item with lowest means score, but accepted as a challenge.

TABLE II FACTORS AFFECTING THE ACQUISITION OF INFORMATION LIT

Sl. No.	Item	A	D	Undecided	Mean Scores
1	Nonexistence of compulsory course on Information Literacy Education for all fresh students	43	115	-	2.43
2	Inability of departments to make Information Literacy a compulsory course(100L - final year) for students.	120	19	9	2.75
3	Inability of lecturers to give students complex take home work (term papers, assignments, seminars) that could be used for the assessment of their information literacy skills.	109	39	-	2.74
4	Badly equipped and poor state of information resources in the university libraries	78	52	18	2.41
5	Failure of the university library staff to render result oriented information services to students.	93	50	5	2.59
	Grand Mean Score				2.58

TABLE III SOLUTION TO THE CHALLENGES OF INFORMATION LITERACY

Sl. No.	Item	3 A	2 D	1 Undecided	Mean Scores
1	The establishment of a Centre for Information Literacy Education.	118	30	-	2.80
2	Making information literacy education a compulsory two-unit course for all students (from first – final year).It should be continuous.	105	36	7	2.66
3	Faculty and librarians teaching the course to be pragmatic in course delivery having standards and contemporary trends in mind.	142	-	6	2.92
4	Adequate financial provision to libraries in order to enable constant organization of literacy programmes	134	-	14	2.81
5	Support from Management inside and outside the library will be needed.	128	-	20	2.73

Table III revealed that at 2.00 means score cut off, all the items were identified as solutions to the challenges of information literacy education. The highest means score recorded as a primary solution to the listed challenges were 'Faculty and librarians teaching the course to be pragmatic in course delivery having standards and contemporary trends in mind, 2.92' and 'Adequate financial provision to libraries in order to enable constant organization of literacy programmes , 2.81'.

IV. FINDINGS AND DISCUSSION

The result revealed that a good number of the students can find, locate and access their required information. A majority of the students reported that they were skillful in their use of internet services and various websites to find their information needs. This study corroborated Rafique and Khan (2017) who reported in their study that most of the students studied unanimously agreed that they have skills to recognize and can define their information requirements. The idea behind information literacy skills is for students to become enduring learners in terms of retrieving, using, categorizing, as well as presenting information professionally. This researcher has every reason to believe that there is Dunning-Kruger Effect in this finding. The results clearly prove that this theory (Dunning-Kruger Effect) manifested in this present study. The theory states that there is no calibration in peoples' perceived and actual information literacy skills; in a number of cases low-performers overrate their capabilities in self-assessments. Works on assessment of information literacy time and again shows that self-reporting cannot replace the examination of people's real information skills (Mahmood, 2013).

One major criticism of self-assessment is inadequate validity of this assessment tool. The literature is awash with reports that people overestimated their information skills, that is, they were over self-assured in reporting their skills in relation to actual performance (Mahmood, 2016). This conduct is called Dunning-Kruger Effect.

All the 5 items listed were identified as serious challenges with inability of departments to make Information Literacy a compulsory course (100L - final year) for students, and inability of lecturers to give students take home work (term papers, assignments, seminars) that could be used for the assessment of their information literacy skills as the major obstacles. The studies by Gross and Latham (2012) and Stagg and Lane (2010) were supported by this present study. The scholars lamented the lack of information literacy course in business schools that would make students to know about the use of library resources such as Online Public Access Catalog (OPAC) as well as other online databases which could assist them in attending to their desired information needs (in terms of research work and assignments). Furthermore, Bhat (2015) acknowledged human resource challenge, inadequate resources, poor turnout to library literacy programmes, time constraint, inadequate understanding of the importance of literacy instructions amongst users as the various challenges in arranging information literacy skills programmes in academic libraries. Concerted effort must be made to ensure that information literacy skills acquisition is a part of the set of courses for the students.

Furthermore, on solutions to the challenges, the study reported that all the items were also identified as solutions to the various issues with 'Faculty and librarians teaching the course to be more pragmatic in course delivery having standards and contemporary trends in mind' and 'Adequate financial provision to libraries in order to enable constant organization of literacy programmes' as the items with the highest mean scores. There is no gainsaying the fact that users should have information retrieval skills in order to be abreast with information evaluation (Bhat, 2015). Information skills could be acquired easily when students embark on their assignments, and this necessitates the need for partnership between library as well as faculty (Young 2008). King (2007) acknowledged that students generally will not give attention and their time to activities that are not in congruence with their official assessment. Studies have shown that a thriving information literacy education programme ought to commence early and be reinforced over and over again with assignments/home works that is increasingly difficult. However, lecturers' inadequate identification of the need for information literacy education is a glaring challenge, and may be exacerbate by online courses delivery (Russell, 2009). Lots of academics are with the habit of assuming that students have before now acquired information literacy skills before their university admission.

Hart and Davids (2010) recommended that enough space in the timetable must be allotted to information literacy programme and also, the recognition of librarians by the faculty as educational partners. Maina (2014) suggested that patrons should be provided training on information literacy so that effective skills could be passed on to them. Also, Maina noted further that adequate funding should be made available to support information literacy education resources through the provision of adequate equipment and facilities.

V. CONCLUSION AND RECOMMENDATIONS

All fields of study require information literacy education. Can students be awake academically and creditably carry their academic functions without having information literacy skills? The researcher is of the view that educational institutions cannot produce information literate graduates that are dogged enough to face issues generated in this knowledge era without being abreast with the course Information Literacy Instructions. To become dependable key actors in our current and next generation knowledge-driven economy, information literacy education must not be toyed with.

Integrating information literacy across all programmes in tertiary institutions requires a partnership amongst parent institutions, faculty members (lecturers) and librarians. Using lectures, discussion and demonstrations, faculty and librarians create environment for learning and motivates students to discover the unknown, proffer direction in order to realize their information needs, in addition to monitoring students' improvement. University librarians organize the appraisal and selection of information materials for programmes and services, maintain the resources and various access points to information, in addition to providing instruction to students who want their information needs met.

Therefore, the following solutions are strongly recommended for tertiary institutions in the country

1. Faculty members and librarians teaching the course should be more pragmatic in course delivery having standards and contemporary trends in mind;
2. Adequate financial provision to libraries by Management in order to enable constant organization of literacy programmes.
3. A Centre for Information Literacy Education should be put in place and be coordinated by the University Librarian.

In fact, the findings of this study is a wakeup call to all stakeholders (university management, policy makers etc.) in the universities to sustain the level of students information literacy skills acquisition by providing some guidelines for the smooth operation of the programmes.

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