# **Journal of Information Literacy**

ISSN 1750-5968

Volume 16 Issue 1
June 2022

# **Project report**

Eze, E. M., & Aduba, D. E. 2022. An investigation into information literacy education in library schools in Nigeria. *Journal of Information Literacy, 16*(1), pp. 108–118.

http://dx.doi.org/10.11645/16.1.2948



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Copyright for the article content resides with the authors, and copyright for the publication layout resides with the Chartered Institute of Library and Information Professionals, Information Literacy Group. These Copyright holders have agreed that this article should be available on Open Access and licensed under a Creative Commons Attribution ShareAlike licence.

"By 'open access' to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited."

Chan, L. et al. 2002. Budapest Open Access Initiative. New York: Open Society Institute. Available at: http://www.soros.org/openaccess/read.shtml [Accessed: 18 November 2015]

# An investigation into information literacy education in library schools in Nigeria

Dr. Monica Eberechukwu Eze, Associate Professor, H.O.D., Department of Library and Information Science, Enugu State University of Science and Technology. Email: ezemonica33@yahoo.com. ORCID: 0000-0003-1391-5392.

Doris Emetarom Aduba, Assistant Chief Librarian, Federal College of Dental Technology and Therapy, Trans-Ekulu. Email:

roseparagon\_1@yahoo.com. ORCID: 0000-0003-4635-7323.

#### **Abstract**

The purpose of this paper is to evaluate information literacy (IL) education in library schools in Nigeria, to establish whether they are in line with international and national library and information science (LIS) standards ('library schools' here indicates departments offering LIS qualifications within higher education institutions). The study used document analysis and qualitative methods. First, departmental documents from heads of department and students' handbooks containing the LIS curriculum were collected from thirty (30) library schools in Nigeria and analyzed. Secondly, lecturers in the department of LIS from the thirteen (13) library schools offering an IL course were engaged in an interview. The study revealed a significant improvement compared to previous studies as 13 out of the 30 Nigerian universities surveyed offered the course 'information literacy' as a stand-alone course in the department of LIS. Unfortunately, the study found that majority of the LIS departments do not have IL laboratories for students to acquire practical skills. These findings will provide useful data for stakeholders in the university system such as supervising bodies, university management, heads of department, and library associations and regulatory bodies, assisting them in the creation of policies related to the integration of IL courses into the school system and in enforcing the implementation of these policies.

# **Keywords**

information literacy; library schools; library and information science curriculum; undergraduate students; universities; Nigeria

## Introduction

Information literacy (IL) is regarded as a vital requirement for promoting independent learning and equipping students with the skills essential to become lifelong learners. The term IL is understood by different authors as encompassing a wide range of skills or abilities. The American Association of College and Research Libraries defines IL as 'the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning' (ACRL, 2015, p. 1). Issa et al. (2015, p. 69) note that IL is a fundamental skill for 'people in everyday life, including undergraduate students who are mostly concerned with learning and research'. Even if IL is approached from different viewpoints, the principal point of IL is being competent and confident in an ever-changing information environment. This competence and confidence will help individuals become independent and lifelong learners. Thus, students need to become information literate by

mastering the ability to define their information needs, to seek and access information from available sources, and to identify which sources are relevant, enabling them to create an information product (in an ethical way), suitable for completing a given task.

Baro (2011) studied IL education in library schools in Africa. From an investigation of more than 60 library schools in Africa, the author found that only few library schools had IL or related areas in their LIS department as a stand-alone course in their curriculum. In this study, only two Nigerian universities were found to have related areas such as 'information society' and 'information seeking behavior' in their curriculum – these were found in the University of Ibadan and in Delta State University respectively. Based on this lack of IL education in the LIS curriculum, it has become imperative for LIS educators to periodically review the LIS curriculum, putting into consideration what employers need from fresh graduates. Malik and Ameen (2021) explored current and future employment opportunities for LIS graduates in Pakistan. Findings indicated the emergence of a non-traditional job market in the country. The authors noted that new job titles and functions were arising as part of an emerging job sector grounded in a 'broader information landscape' (Malik & Ameen 2021, p. 79). A changing employment and professional context has led to new information roles and responsibilities in public and private sectors across the globe. The expanding employment landscape has implications for preparing future information professionals (IPs) (Ocholla & Shongwe, 2013). In this context, the LIS curriculum in Nigerian universities needs reviewing and updating. This paper thus seeks to investigate the level of inclusion of IL courses in library schools' curricula in Nigeria to equip students with the skills they need to be competent and confident in information seeking and use. To achieve this, research questions were developed to guide the study.

# **Research questions**

- RQ1. Which Nigerian universities are offering the course 'information literacy' as a stand-alone course in their LIS department?
- RQ2. At what level is the 'information literacy' course taught?
- RQ3. Is the course content in line with the Librarians' Registration Council of Nigeria (LRCN) recommendations for IL courses?
- RQ4. Do the LIS departments or university libraries have IL laboratories?

# Literature review

#### Students' IL skills

IL provides students with the critical skills needed to find and evaluate the information they need for their academic work and personal lives (ACRL, 2015). In Nigeria, Anunobi and Ukwoma (2016) studied the IL trends, challenges and opportunities in Nigerian universities, with a focus on the characteristics of IL training, the content of IL courses, and on whether this was sufficient to enable students' IL development and prepare them for university education and lifelong learning. The authors discovered that majority of the universities studied were yet to integrate IL programmes. Similarly, Issa et al. (2015) investigated the IL competence of final year undergraduate students of LIS at the University of Ilorin, identifying 'their information needs and ability to satisfy such needs, exposure to IL programmes, strategies employed and the challenges faced' (p. 68). The study revealed that the students lack IL skills. The study therefore calls for the need for a stand-alone course on IL in the LIS curriculum. Recently, when Okeji, Ilika and Baro (2020) assessed the IL skills of final year LIS undergraduates in Nigerian universities, they found that students understood themselves to have strong IL skills, rating their ability to organise information and extract ideas from information resources as high. However, a majority of respondents also rated their ability to correctly paraphrase sources to avoid plagiarism as moderate, and almost half rated their ability to use referencing styles correctly as low (Okeji, Ilika & Baro, 2020, pp. 528-29).

In the same vein, Nwalo and Oyedum (2011) evaluated the IL skills of undergraduate students in six federal universities in Nigeria, particularly the use of library/computer literacy, and found students to be generally poor in IL skills. In this context, it is important to assess the degree of integration of IL courses into the LIS curriculum to equip students with the necessary skills. IL skills are required not only 'to gain access to available information resources', but also to sift through large quantities of information and 'utilise the most appropriate information resources' (Okiki & Mabawonku, 2013, p. 63). When students possess adequate IL skills, their confidence and ability to work independently is improved since they can think critically, interpret information and make informed judgments (Okeji, Ilika & Baro, 2020).

#### IL in the LIS curriculum

IL education is becoming increasingly important in a world that is rapidly evolving through the growth and proliferation of technological and information resources. As a result, information users are faced with countless information choices and must decide which resource(s) to use in the acquisition of information. They must also determine the authenticity, validity and usability of the information they discover. In this context, Okeji, Ilika and Baro (2020) recommend that library schools in Nigeria and other lower-income countries should integrate 'information literacy' as a stand-alone course in the LIS curriculum.

It is paramount for universities to ensure that all students acquire IL skills by integrating IL instruction into the curriculum (Baro, 2011; Chu, Yeung & Chu, 2012). Inskip (2015) studied IL in LIS education in the UK and found that the key concepts of IL are embedded within the core programme. The author suggested that the introduction of a distinct module 'may more appropriately reflect stakeholder requirements, including LIS students' combined needs as producer-consumers of IL interventions in their study and practice' (p. 94). Burnett (2013) found that LIS curricula in Zimbabwe are too theoretical with a limited interest in applications for contemporary work environments.

#### IL course contents

Guiding documents and professional standards have long established the general IL core competencies that students should acquire at each level of schooling as well as best practice recommendations for IL programmes. In Nigeria, The Librarians' Registration Council of Nigeria (LRCN), which is responsible for regulating and standardizing the activities of the LIS sector. recommended that every library school's curriculum should include a course on 'information literacy', to be taught at the first year (100 level) of the undergraduate programme. The course content should cover areas such as: the definition of IL; the importance of IL; characteristics and types of information; information sources; information access tools; search strategies; IL skills; the internet as an information provider; copyright issues; citation patterns; and the evaluation of information sources (LRCN, 2017). Therefore, IL instruction in the LIS curriculum is expected to cover all these areas in order to produce information literate graduates who are confident and efficient in information use. The 'information literacy' course content analysis in Baro's (2011) study of library schools in Africa revealed that the emphasis is on areas such as: the basics of information accessing; recognition of information needs; information searching skills; location of information resources; the ability to evaluate and synthesise information; and the use of information sources including digital sources, the internet, and databases.

# Challenges to IL course implementation

Katuli-Munyoro and Mutula (2017) assessed LIS curricula in Zimbabwean universities and polytechnic colleges 'in the context of perceived skills gaps and from employers' perspectives on what is required from graduate professionals in entry-level jobs' (Katuli-Munyoro & Mutula, 2017, p. 915). The study identified gaps in both knowledge and employability training in LIS curricula.

The researchers suggested that Zimbabwean LIS education programmes 'are in urgent need of radical transformation and need to adopt innovative education models to meet the dictates of the techno-economic paradigm that serves society today' (Katuli-Munyoro & Mutula, 2017, p. 915). According to Issa et al. (2015), 'the challenges indicated by many of the respondents in identifying, locating, and using needed information pointed to the fact that majority lack basic IL competency skills' (p. 75). Most of the undergraduate students surveyed did understand that they needed IL education to allow them to locate and use information more effectively.

Diekema, Gerrity and Mitchell (2019) studied information literacy in the Utah education system from preschool through to university graduation. They identified several areas where the education system encountered challenges in offering adequate IL training: 'staffing, scheduling, curriculum integration, teacher collaboration and student assessment' (p. 224). Potential improvements suggested by the authors include 'providing educational support for paraprofessionals; facilitating cross-institutional collaboration; and creating a scope and sequence document that spans the entire educational spectrum paired with specifically teaching for transfer' (Diekema, Gerrity & Mitchell, 2019, p. 224).

# Summary of literature review

The review was conducted under the following sub-headings: students' IL skills; IL in the LIS curriculum; IL course contents; and challenges to IL course implementation. The challenge information seekers face due to an over-abundance of information is what makes most studies reviewed call for the integration of IL courses into the LIS curriculum to equip students with IL skills. Students are expected to discover things for themselves, find the information they need, and evaluate and use data to support their assignments and projects: all activities which require adequate IL. Most of the studies reviewed have shown the changing education and training needs of information professionals and the failure of the curricula to produce information literate graduates. It is clear that in a number of contexts worldwide, and in Nigeria specifically, there are substantial challenges to ensuring adequate IL education for students, and that university may represent the final chance to address this deficit and prepare students for a professional environment in which IL skills are a necessity. The reviewed literature indicates that there is a need to strengthen IL education in Nigeria by integrating IL courses into the LIS curriculum.

# Methodology

The study adopted the document analysis method to investigate the current state of IL education in library schools in Nigeria. The document analysis method was used because it would provide reliable data concerning the availability of the course 'information literacy' in the curriculum. As of January 2021, there are about 35 library schools approved by the National Universities Commission (NUC, 2021). Data collection was in two parts: first, departmental documents from heads of department and LIS students' handbooks containing the curricula for undergraduate programmes were collected. In total, departmental documents from 31 out of the 35 library schools were collected and analysed. One person did the analysis by checking the departmental document containing the LIS curriculum for the course 'information literacy'. Furthermore, the course content of each Library school was analysed in relation to the course content recommended by the LRCN by using 'yes' or 'no' to indicate whether specific elements were available or not available. The remaining four library schools did not send their LIS documents for analysis.

Secondly, some lecturers in LIS departments that were offering 'information literacy' courses were contacted and engaged in an interview on the availability of IL laboratories either in the department or in the university libraries. In total, 22 lecturers were contacted by telephone to ask them to participate, and out of this number 13 lecturers willingly agreed to participate in an

open-ended interview, each representing one library school offering an IL course. The lecturers were interviewed separately and the interviews lasted for 30 minutes each.

The interview question was:

• Is there an IL laboratory in the department or the university library?

The interview responses from the LIS lecturers were tape recorded and coded to be 'Yes' or 'No' according to the questions and the responses from the discussion section.

# **Results and discussions**

# Universities in Nigeria offering the course 'information literacy' in their library school curricula

From December 2020 through to March 2021, the researchers collected and examined the LIS curricula of library schools in Nigeria to ascertain the availability of IL courses.

Table 1: Universities that responded

s/n	University	Department	Course	Level
1	Rivers State University, Port-Harcourt	Library & information Science	-	-
2	University of Port-Harcourt, Port-Harcourt.	Library and Information Science	Information literacy	100
3	Modibbo Adama University of Technology, Yola	Library and Information Science	-	-
4	Ahmadu Bello University, Zaria	Library and Information Science	Information literacy instruction	300
5	University of Jos	Library and Information Science	-	-
6	University of Abuja	Library and Information Science	-	-
7	Delta State University, Abraka	Library and Information Science	-	-
8	Ajayi Crawder University	Library and Information Science	-	-
9	Tai Solarin University of Education.	Library and Information Science	Information literacy	300
10	University of Nigeria, Nsukka	Library and Information Science	-	-
11	Madonna University	Library and Information Science	-	-
12	Umaru Musa Yar'adua University, Katsina	Library and Information Science	-	-
13	Abia State University, Uturu	Library and Information Science	Information literacy	200
14	Ignatus Ajuru University of Education. Port-Harcourt	Library and Information Science	Information users / literacy	200
15	Ambrose Alli University, Ekpoma	Library and Information Science	Information literacy	100
16	Federal University of Technology, Minna	Library and Information Technology	-	-
17	University of Calabar	Library and Information Science	Information literacy	200

18	Michael Okpara University of Agriculture, Umudike	Library and Information Science	Information literacy	200
19	Bayero University Kano	Library and Information Sciences	-	-
20	Nnamdi Azikiwe University, Awka	Library and Information Science	Information literacy	100
21	Abubaka Tafawa Balewa University	Library and Information Science	-	-
22	Imo State University, Owerri	Library and Information Science	-	-
23	Odumegwe Ojukwu University, Anambra State.	Library and Information Science	-	-
24	Benue State University	Library and Information Science	Information literacy	100
25	University of Benin, Benin- City	Library and Information Science	-	-
26	University of Ibadan, Ibadan	Library Archival and Information Studies	Information literacy	200
27	Babcock University	Department of Information Resources Management	Introduction to information literacy	200
28	University of Ilorin, Ilorin	Library and Information Science	-	-
29	Enugu State University of Science Technology	Library and Information Science	Information literacy	200
30	University of Uyo	Library and Information Science	-	-
31	Lead City University	Library and Information Science	-	-

In answer to the question 'Which universities are offering the course 'information literacy' as a stand-alone course in the LIS department in Nigeria?', Table 1 shows that out of the 31 library schools investigated in Nigeria, 13 (41.9 %) library schools offer the course 'information literacy.' A previous study by Baro (2011) revealed that only a few institutions across Africa offered a stand-alone course in IL in their LIS departments. Specifically, Baro's study showed that in Nigeria only two universities offered the related courses 'information society' and 'information seeking behavior', in the University of Ibadan and Delta State university respectively. This shows that IL education was not given primary emphasis in library schools in Africa, especially in Nigeria, as of 2011. 10 years later, however, a significant improvement has been demonstrated by the present study, as a good number of Nigerian universities now offer the course 'information literacy' as a stand-alone course in the department of LIS.

Interestingly, the present study found significant improvement in the level of integration and provision of IL training in the LIS curriculum. Some universities offer the course 'Information Literacy' as a general course with a large number of students. For example, the University of Ilorin LIS curriculum offers the course 'Information Literacy for the Digital Age', with course code ICS 106, as a general course, compulsory for all new students and cutting across all disciplines in the university, rather than as a departmental course. This will not enable LIS students to acquire IL skills – rather, incorporating the 'information literacy' course into the LIS curriculum is the best way for these students to acquire information skills. Therefore, the LIS curriculum needs reviewing and updating to integrate relevant courses such as 'information literacy'.

#### Level of IL education

To answer the question 'At what level is the 'information literacy' course taught?', Table 1 shows that out of the 13 universities offering IL courses, 4 (30.8%) library schools offer it at 100 level (first year), 7 (53.8%) offer it at 200 level (second year), while 2 (15.4%) offer it at 300 level (third year). This is not in line with the recommendations of the LRCN that the course 'information literacy' should be taught from the first year (100 level) (LRCN, 2017). This calls for a review of the curriculum to make the necessary adjustments for it be in line with the LRCN recommendations. Many researchers have called for embedding IL into the curriculum gradually from the first-year programme to the final year programme (Baro, 2011; Katuli-Munyoro & Mutula, 2017; Moyo & Mavodza, 2016). According to Diekema, Gerrity and Mitchell (2019), IL instruction takes place at all levels of education in the United States.

# IL course content in library schools in Nigeria

The course content analysis of the library schools offering 'information literacy' was done in line with the LRCN IL course content recommendation for library schools in Nigeria. The researchers came up with the various topics as recommended by the LRCN. From the document analysis, topics such as the concept of IL, IL skills, information search tools and strategies, characteristics and types of information sources, problem identification, and plagiarism, citation and referencing are the most popular. In contrast, least popular are topics such as the importance of IL, research strategy, copyright issues, and evaluation of information sources (details in Table 2). The findings show that the course contents are in line with the recommendations of the LRCN for library schools and recommendations of some authors (Baro, 2011; Moyo & Mavodza, 2016). This answers the question 'Is the course content in line with Librarians' Registration Council of Nigeria (LRCN) recommendations for IL courses?' To address the issue of plagiarism caused by information and attribution problems, LIS students could be instructed to cite a published text and then include an accurate reference for their citation.

**Table 2:** Universities offering an IL course and course contents.

s/n	Universities	Information literacy course contents									
		concept of information literacy	Importance of information literacy	characteristics and types of information sources	Problem Identification	Evaluation of information sources	Information literacy skills	Research strategy	Plagiarism, citation and referencing	Copyright issues	Information search tools and strategies.
1	Ambrose Alli University, Ekpoma	yes	no	yes	yes	yes	yes	yes	yes	no	yes
2	Abia state university, Uturu	yes	no	yes	yes	yes	yes	yes	yes	yes	yes
3	University of Port- Harcourt, Port- Harcourt	no	yes	yes	no	yes	yes	no	yes	no	yes
4	Ignatius Ajuru University of Education, Port- Harcourt	yes	no	yes	yes	yes	yes	no	yes	no	no
5	Ahmadu Bello University, Zaria	yes	yes	yes	yes	yes	yes	no	yes	yes	yes

6	Babcock university	yes	yes	yes	yes	no	yes	yes	yes	yes	yes
7	University of Ibadan	yes	yes.	no	yes	yes	yes	no	no	yes	yes
8	Benue state university, Makudi	yes	no	yes	yes	no	yes	yes	no	yes	yes
9	Nnamdi Azikiwe University, Awka	yes	no	yes	yes	yes	yes	no	yes	yes	yes
10	Michael Okpara University of Agriculture, Umudike	yes	yes	yes	no	yes	yes	yes	yes	no	yes
11	University of Calabar	yes	no	yes	yes	no	yes	yes	no	yes	yes
12	Enugu State University of Technology	yes	yes	no	yes	yes	no	no	yes	yes	Yes
13	Tai Solarin University of Education, Epe	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

# Availability of IL laboratories in library schools

One lecturer from each library school was interviewed about whether there was an IL laboratory in the department or the university library. IL laboratories are separate sections equipped with computers and other multi-media facilities with internet connectivity for practical IL classes to equip students with the skills to effectively search for information. Out of the 13 lecturers interviewed, only 4 (30.8%) lecturers answered 'yes', confirming that they have an IL laboratory for students' use. The remaining 9 (69.2%) lecturers answered 'no' that their LIS department did not have an IL laboratory. One lecturer who answered 'No' explained further - 'it is capital intensive to have a functional computer laboratory in the department or university library as information literacy lab. The university cannot provide the needed facilities'. Another lecturer from another library school mentioned – 'no' we don't have information literacy laboratory, we have requested for modern computers to establish an information literacy laboratory in the department but the department is still waiting for response from the university'. With regard to the question – 'Do the LIS departments or university libraries have IL laboratories?', the answer is 'no' as revealed from the responses. Responses indicate that finance is the main hindrance to the provision or approval of the request to university management to establish an IL laboratory as it is capital intensive. Therefore, LIS department heads need to do more by pressing university management to provide the funds for the acquisition of facilities to establish IL laboratories. IFLA (2012) recommended that the LIS curriculum programmes should refer to educational policy statements issued by government or professional associations that identify important knowledge and skill components. In line with this, the LRCN/NUC in Nigeria (LRCN, 2017, NUC, 2018) recommended that every LIS school in Nigeria should have an ICT laboratory equipped with:

- Ratio of one computer to five (5) students in the LIS school.
- Computers networked with internet connectivity.
- Multimedia (digital cameras, digital projectors, cable TV).
- Printers, photocopiers and scanners.
- Students' personal laptops/tablets.

On instructional resources and facilities, IFLA (2012) guidelines for LIS programmes recommended that 'computer hardware and software and multimedia resources should be available for students and staff and be sufficient for the level of use required for coursework and faculty research' (p. 9). In addition, 'adequate Internet access and availability is required for

faculty and students' (IFLA, 2012, p. 9). For this reason, the LRCN/NUC recommended departmental computer laboratories equipped with internet connectivity.

The results concerning the availability of IL laboratories in the LIS department show that library schools in Nigeria are yet to comply with the directive from the LRCN/NUC regarding provision of computer laboratories. This shows that majority of the LIS departments have not made it a priority to obtain modern computers with internet facilities to enable students to acquire IL skills as is the case in developed countries. This conclusion supports the findings of Saka, Garba and Zarmai (2018) who studied the proliferation of LIS schools in Nigeria and outlined the key issues at stake in the proliferation of LIS schools in Nigeria without due regard to the established standards in terms of 'physical infrastructure, location, staffing issues, curriculum, laboratories and programme(s)' (p. 95). According to the authors, the implications of this include inadequate training for LIS students, who will therefore not reach the necessary skill level, as well as overuse of facilities belonging to other departments, leading to failures in evaluating and verifying the availability of resources and issues with accreditation for Nigerian LIS programmes.

#### Conclusion

This analysis indicates that a significant improvement has been revealed by the present study compared to the findings of previous studies by Baro (2011) and Anunobi and Ukwoma (2016), as 13 universities out of the 30 Nigerian universities surveyed offered the course 'information literacy' as a stand-alone course in the department of LIS. However, the LRCN recommends that the course be taught from the beginning as an 100-level course, which is not always the case. This calls for adjustment to comply with the LRCN directive. The course content analysed showed that the 'information literacy' course contents of the library schools are in line with recommendations in the literature and from the LRCN.

# Recommendations

- Stakeholders in university education such as supervising bodies, university
  management, heads of department and library associations and regulatory bodies
  should ensure quality control for universities running LIS programmes in Nigeria.
- As the use of libraries is being developed and consolidated, IL programme development should be prioritised in the university system.
- Library schools need to review and update their curricula regularly to incorporate new courses such as 'information literacy' to equip students with necessary skills that will make them employable after graduation.
- IL needs to be integrated into the secondary school curriculum in lower-income countries to equip students with IL skills from a young age.

#### Research limitation.

This study only includes library schools in Nigeria. Further study should be conducted on library schools in other lower-income countries.

## References

Association of College & Research Libraries (ACRL). (2015). <u>Framework for Information Literacy for Higher Education</u>. American Library Association.

Anunobi, C. V., & Ukwoma, S. (2016). <u>Information literacy in Nigerian universities trends, challenges and opportunities</u>. *New Library World, 117*(5/6), 343–359.

Baro, E. E, Seimode F. D., & Godfrey, V. Z. (2013). <u>Information literacy programmes in university libraries</u>: A case study. *Libri*, 63(4), 282–294.

Baro, E. E. (2011). <u>A survey of information literacy education in library schools in Africa</u>. *Library Review,* 60(3/4), 202–217.

Burnett, P. (2013, August 15–23). <u>Challenges and problems of library and information science education in selected African countries</u>. IFLA WLIC 2013, Future Libraries: Infinite Possibilities, Session 199 - LIS Education in Developing Countries Special Interest Group, Singapore.

Chu, C. B. L., Yeung, A. H. W., & Chu, S. K. W. (2012). <u>Assessment of students' information literacy: A case study of a secondary school in Hong Kong</u>. CITE Research Symposium, Hong Kong.

Diekema, A. R., Gerrity, C., & Mitchell, P. (2019). <u>Information literacy in Utah: A state of the state</u>. *Reference Services Review, 47*(3), 224–256.

Inskip, C. (2015). <u>Information literacy in LIS education: Exploring the student view</u>. *Journal of Information Literacy*, 9(2), 94–110.

International Federation of Library Associations and Institutions (IFLA). (2012). <u>Guidelines for Professional Library/Information Educational Programs</u>.

Issa A. O., Amusan, B.B., Olarongbe, S. A., Igwe, K. N., & Oguntayo, S.A. (2015). <u>An assessment of the information literacy competence of undergraduate students at the University of Ilorin, Kwara State, Nigeria</u>. *Annals of Library and Information Studies, 62*(3), 68–76.

Katuli-Munyoro, P., & Mutula, S. M. (2017). <u>Redefining Library and Information Science</u> <u>education and training in Zimbabwe to close the workforce skills gaps</u>. *Journal of Librarianship and Information Science*, *51*(4), 915–927.

Librarians' Registration Council of Nigeria (LRCN). (2017). *Library and Information Science Curriculum and Benchmark*. Obamoluwa Press and Publishers.

Malik, A., & Ameen, K. (2021). <u>The employment landscape and LIS education in Pakistan:</u> Challenges and prospects. *Global Knowledge, Memory and Communication*, 70(1/2), 255–272.

Moyo, M., & Mavodza, J. (2016). <u>A comparative study of information literacy provision at university libraries in South Africa and the United Arab Emirates: A literature review</u>. *Library Review*, *65*(1/2), 93–107.

National Universities Commission (NUC). (2021). <u>Results of accreditation of undergraduate academic programmes taught in Nigerian universities (1990 - November 2021)</u>. National Universities Commission.

National Universities Commission (NUC). (2018). Benchmark minimum academic standards for undergraduate programmes in Nigeria: Library and Information Science. National Universities Commission.

Nwalo, K. I. N., & Oyedum, G. U. (2011). Relationship of information literacy to undergraduate students' use of university libraries. *Library Progress International*, *31*(2), 347–362.

Ocholla, D. & Shongwe, M. (2013). <u>An analysis of the library and information science (LIS) job market in South Africa</u>, *South African Journal of Libraries and Information Science*, 79(1), 35–43.

Okeji, C. C., Ilika, O. M., & Baro, E. E. (2020). <u>Assessment of information literacy skills: A survey of final year undergraduates of library and information science in Nigerian universities</u>. *Global Knowledge, Memory and Communication, 69*(6/7), 521–535.

Okiki, O. C., & Mabawonku, I. M. (2013). Information literacy skills of academic staff in Nigerian federal universities. *International Journal of Library Science*. CESER Publications, 8(2), 62–77.

Saka, K. A., Garba, S. K., & Zarmai, M. M. (2018). <u>Proliferation of library and information science schools in Nigeria: Issues at stake and quality control</u>. *International Journal of Library and Information Science*, *10*(9), 94–101.