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Survey of Library and Information Science Education in Nigeria: The Case of Two LIS Schools

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Abstract

This study investigated the state of Library and Information Science Education in Nigeria. The essence of the study was to explore the current LIS educational activities and environments and determine how it fully prepares librarians for the changes that are taking in academic institutions. Descriptive survey research design was used; four research questions were raised. The study population comprised of 264 LIS students at University of Port-Harcourt and Rivers State University, Nigeria, in which total enumeration sampling technique was used. 245questionnaire were returned and considered suitable for data analysis; this gave 93% response rate. SPSS output format based on simple frequency count and percentage distribution, mean and standard deviation were used for data analysis. The findings revealed that: LIS students' awareness on emerging topics in the discipline was low; there were no practical sessions on Information Literacy, Digitization, as well as Indexing and Abstracting. Though there were modern facilities, yet, there were no RDA Toolkit and Teleconferencing facilities, just as students do not have the opportunity of evaluating their lecturers. In addition, cognitive, affective, and psychomotor skills are not collectively considered in the overall evaluation of LIS students. Based on the findings of this study, four recommendations were made.

Keywords: Library and Information Science Education; Emerging Trends; Curriculum Review; Educational Infrastructure

1. Introduction

Librarianship is a profession that is concerned with the information needs of citizens in every society. The roles being played by librarians in societal building and sustenance cannot be underrated as they provide equitable access to all types of information that are needed for the transformation of societies. According to Denise, Bedford, Jennifer and Nancy (2015) librarians have understood the knowledge society as one characterized by an increased focus on digital resources and an expanded use of virtual channels to deliver those resources. This knowledge society therefore presents new opportunities for librarians to leverage their intellectual capital. It could therefore be inferred that librarians are trained and equipped to acquire resources that are needed to provide services that meet the needs of the community they serve. One of the major significance of information is its capacity to reduce uncertainty, sustains planning and an instrument for decision making.

After graduating from the university, librarians work in different organizations as knowledge managers, academic librarians, school media resource specialists, archivists or publishing officers. With the emergence of ICT and Web 2.0 technologies, Bradley (2010) submitted that libraries now have new dynamic roles to play in knowledge society and thus librarians are affected by ICT as much as they can also influence the technology. One of the industries where librarians work is academic community where they play major roles in academic literacy and scholarly communication, among others.

Academic community connotes the given place where lecturers and students in higher education relate and share knowledge. As such, students progressively become members of the academic community through exposure to the methodologies of their respective disciplines, and personal contacts with the lecturers and other members of the university (Marinkovich, Velásquez, Córdova, and Cid, 2016). Academic communities provide literacy training, which as opined by Carlino (2013), gave emphases on the role of lecturers and academic institutions in the learning process. Explicitly from the foregoing, specialist, like librarians have become imperative to guide students and assist lecturers in their academic activities. This becomes necessary because the varied nature of academic writing and other activities present more challenges to students and lecturers. However, little attention has been given to how the current LIS curriculum can help graduates to effectively contribute to the transformations going on in academic communities. Meanwhile, the roles of librarians in academic communities are multifaceted.

At different stages, members of the academic communities where librarians work are confronted with diverse problems in which libraries/librarians are regarded as the dependable resort as agents of change in Nigeria. Since the users, according to Anuradha (2017) have become more information conscious for accessing electronic information compared to different purposes such as academic or research needs, digital libraries, institutional repositories and open archives have become new trends of satisfying users' needs for precise information in the present digital era. Consequently, in Nigeria, diverse transformations are on-going in the academic communities; these include but not limited to the adoption of open distance and blended learning, institutional repository building, and Makerspace. Thus, it is imperative that Library and Information Education prepares would-be librarians for the challenges ahead and empower them with skills and expertise that will make them relevant in the frequently changing academic society.

Aside open distance learning and others listed above, other emerging transformations in academic communities globally include open access research, open science, Research Data Management, innovative practices, e-learning and collaborative educational blogging. Regarding these emerging trends, Rebmann and Clark (2017) opined that education in LIS works on many levels and students are called to learn about tools and technologies of information across many contexts, dimensions of use, and purposes. Hence, this study seeks to investigate the state of LIS education in Nigeria with the view to identify how much it aligns with global trends and patterns. The timeliness of this study will help to reveal areas of some of the emerging topics in LIS that can develop professional competencies in librarians so as to drive and not be driven out by the transformation in the academic communities.

1.2. Statement of the Problem

Information plays fundamental roles in the transformation of every society just as education prepares graduates to become useful members of the every society they may be found. Library and Information Science education prepares and equips professionals with needed skills and knowledge required to work in any libraries upon graduation. However, the environment in which librarians work is in continuous change being driven by electronic networks as well as information and communication technologies (ICTs). These changes, which also affect library professionals, call for continued paradigm shifts in the components of Library and Information Science education curriculum. For librarians to be part and remain major reference points in the constant transformations in Nigeria's academic

communities, the current process through which they are formally trained has to be empirically investigated. This becomes imperative because the users that the current LIS students will be attending to after their trainings have been exposed to different learning alternatives. Hence, it is good for librarians to be trained to meet the needs of the millennials in any library.

As observed and through interactions with LIS undergraduates during few informal discussions, it seems LIS students are not aware of some global emerging topics which recent literature in the discipline have revealed. Aside this, it appears the current educational processes being used in the educational process of librarians are more of theory-based than practical; an approach that may not aid knowledge retention in LIS students while been faced with the realities constant changes in the academic communities. The reason for the assumed theory-based LIS educational process may have been linked to the lack of modern educational infrastructure for the training of the students. Since every student has to be evaluated, there is an impression that LIS students are not being evaluated using more than one parameter. If final evaluation of LIS students is restricted to examination scores alone, then, students low academic records may be looked down upon and thereby rendering their latent potentials and skills redundant.

All aforementioned remain severe problems because they have capacity to limit the potentials of librarians in the quest to fully assume their rightful positions as information service managers in Nigeria's academic communities. Essentially, lack of awareness of the emerging trends will limit librarians' ability to fully engage in intellectual discourse with their users, colleagues, and lecturers both within and outside Nigeria. A theory-based LIS educational process will result in the production of impulsive professionals that will constantly be at the mercy of changes being influenced by advances in information technologies. In essence, lack of modern educational infrastructure will hinder hands-on skill acquisition for LIS students; a problem that will negatively affect professional competence and users' satisfaction in the long run. In addition, evaluation gives a mental picture of student's ability. Thus, it may not be justified if a student's evaluation is based on one parameter. Such process may not be objective and thus affects students' self-awareness. Therefore, there is need to investigate the state of library and information science education in Nigeria using LIS undergraduates at University of Port-Harcourt, Rivers State and Rivers State University respectively as a case study.

1.3. Objectives of the Study

The objectives of this study are to:

i. determine the level of awareness of LIS students in two universities in Nigeria on the emerging topics in librarianship globally;
ii. identify educational processes being used to prepare LIS students in two universities in Nigeria;
iii. assess educational availability of infrastructures for LIS education in two universities in Nigeria;
iv. identify methods of evaluation being used for LIS students in two universities in Nigeria.

2. Literature Review

The place of librarianship in the transformation of academic communities in Nigeria is evident in the ways it educates professionals who manage information for national development. Dissemination of knowledge has always been one of academic libraries primary goals as long as they have served as learning institutions, cultural repositories and research centers but in this digital age of knowledge, they have to expand these roles and stop being passive repositories for printed material. To the contrary, academic libraries should upgrade their services and providing education of high quality by storing resources in various forms and maintaining easily accessible for online use among academic community (Anuradha, 2017). However, due to constant changes in the environments where librarians work, the

educational activities being adopted in the training of library and information science (LIS) students in Nigeria have to be explored. The attempts in this study is predicated on the submission of Mills, Campana and Goldsmith (2017) that in the face of a changing landscape of information services, LIS education can push the field of librarianship forward by adopting research-based frameworks that are directly applicable to the profession. This submission further established that globally, different changes are emerging in the educational landscape where professionals are trained.

Similarly, Ray (2015) reported that in India, almost all the faculty members in LIS departments are expert IT specialists and the bare fact is that LIS education is not all about Computer and ITs. Specifically, the discipline has issues and theories regarding the techniques of common library practices. He further stressed the need for practical requirements and as such, the curriculum needs to be framed with a combination of both ITs and theories. He maintained that librarianship is a professional course; yet, unlike other vocational courses its nature is virtually academic. Hence the academic flavour of the profession is to be retained to make it distinct from other professional courses. Consequently, Ganaie (2015) critically assessed Library and Information education in India to discuss the developments that have occurred in the LIS field and the challenges posed by these developments to the library and information science schools. Findings of the study revealed a heterogeneity existing in the LIS discipline in terms of their affiliation to a particular faculty in different universities, while there is no homogeneity in the curriculum adopted by different LIS departments in the country. The findings from Ganaie's study implied that concrete steps by apex library bodies be taken to provide procedures for reaching uniformity in the LIS educational sector; such will provide contributions for an enhanced LIS education.

Using an IFLA directory to identify the European centres offering LIS-related programmes, Borrego (2015) explored the situation of Library and Information Science (LIS) education in the European Union. Results of the study confirmed the absence of a common European approach to LIS education as well as a very low level of activity in domestic or international partnerships. In many cases there were no strong distinctions between undergraduate and graduate programmes because they have similar names with no specified target audiences. Most programmes that complement the postgraduate degrees in librarianship revolve around digital curation, business information services and data analytics. It is a general awareness that libraries are now adopting digital resources to render digital service; someone may then wonder how analogue librarians became trained to become effective in a digital information world. This is one of the burdens of this study that is set to investigate the current educational activities in LIS schools in Nigeria. The central purpose is to examine if the current trends can fully prepare LIS students for the professional challenges in libraries, after their graduations from the university.

On this note, Audunson and Shuva (2016) took a survey of digital library (DL) education in Europe and observed that funding related to DL are available for building DLs, rather than producing digital librarians by developing the DL curricula and offering necessary funding to introduce state-of-the-art DL labs for future library professionals. The findings of the study noticeably revealed that the majority of the LIS schools have already incorporated digital librarianship in their regular bachelor's and master's degree programmes. The DL course contents of the LIS schools in Europe are diverse and the importance of practical DL course contents has been highlighted by the participants of the study. Abdulrahman and Habila (2017) maintained that Library and Information Science education is indispensable in the competitive era of knowledge and information management being influenced by technological advancement. These have made significant changes in the profession towards achieving the desired objective of meeting up with the modern trends in information services delivery. They further stressed that education in Library and Information Science has taken a new turn in the face of far-reaching developments sparked off by the trend towards globalization. Their capitulations implied that for library professionals to fully engage in the transformation processes that are taking place in higher education sectors in Nigeria they also need exhaustive, well-thought-out and all-encompassing formal education and

training that will make them remain relevant agents that drive changes. However, Library and Information Science schools still face many challenges in trying to provide appropriate and sustainable solutions for improving curriculum and skills that will support development in all ramifications (Manir, 2011). Taking inference from these findings, there have been calls for the overall review of LIS curriculum in Nigeria by respective authorities. Hence there is need to determine the level of awareness of LIS students in Nigeria on emerging topics in the field.

In Zimbabwe, Katuli-Munyoro and Mutula (2017) revealed that redefining library and information science education and training is structured to close the workforce skills gaps. The study identifies gaps in knowledge as well as in functional and generic employability training in LIS curricula. The gaps are connected to the transient environment in which LIS departments operate, outdated educational models, shortage of well-developed multi-stakeholder mutual partnerships and alliances, an expanding labour environment and the absence of continuous professional development programmes. One of the major inferences from the result is that Zimbabwean LIS education programmes need thorough transformation through the adoption of innovative education models that can meet the dictates of the techno-economic standard that serves today's society. It could thus be inferred from the submissions above that; there is need for the training of academic librarians to align with the modern changes in the academic societies.

Otike (2017) studied the past, present and future of LIS education in anglophone Africa from the colonial period to the present. It was found out that the earliest schools were initially known as library schools, which later changed to LIS schools after independence. The curricula used in the schools were based on programmes prevailing in the mother country. The study finally revealed that LIS schools are rapidly increasing all over the continent, the development if not checked, could have a severe consequence on the quality of the graduates being produced. Thus, LIS schools will need to match the rapid changes taking place in the information industry and societies with the process of preparing and producing information professionals. Nalumaga (2016) surveyed trends and development in information schools (iSchools) and Africa. She reported that the movement from traditional library schools to iSchools reflects a revised approach towards librarianship and information technologies. This, for some institutions embracing a more modern identity and disciplinary approach, may be a matter of survival. She also revealed that an examination of library and information schools across Africa indicates that only one has formally adopted the iSchool perspectives. This submission revealed that there is need for definite changes in the infrastructure, curriculum contents and process of LIS education for the transformation of academic society.

In Nigeria, library and information science education as upheld by Abdulrahman and Habila (2017) cannot be significant without effective preparation of new generation of librarians to efficiently use the new information technology. Application of ICT in library education is however not new; meanwhile, the level of application and success is worrisome. Another major requirement for the training of library and information professionals is the availability of infrastructure. Consequently, Saka (2015) reported that there are no adequate facilities provided, and, as such, the acquisition of ICT skills is low at undergraduate levels of LIS in Nigeria. This however is linked with inadequate computer laboratories, which has led to low level of ICT skills/practices. He however noted that the traditional mode of teaching in library schools cannot endure the modern trends because of imperative need of computers and other ICT facilities in the training LIS graduates. This finding is one of the indicators of the need for research in emerging issues and themes in LIS education in Nigeria.

Igwe, Musa and Odenigo (2018) examined contending issues and emerging trends in Library and Information Science education for Sustainable Development in Nigeria. The study identified unresolved challenging issues in LIS education and training in Nigeria, sustainability of LIS schools as well as contributes positively towards actualization of the Sustainable Development Goals (SDGs). Some of the different issues in the education and training of LIS professionals in Nigeria that were raised include

nomenclature crisis, curriculum, course contents, contemporary programmes, infrastructure and human resources. Considering the trends in information services delivery, the authors also recommended that university-based LIS schools work to ensure that their graduates are able to gain hands-on ICT skills in database management, digital preservation, institutional repositories, and social media use for library services, among others. Issa, Idowu, Harande and Igwe (2016) revealed from their study of twenty (20) university-based LIS schools in Nigeria that training library students without relevant and diverse information resources, ICT laboratory with functional systems and Internet connectivity are major issues serving as challenges.

Kacunguzi and Samuel (2016) assessed Nigerian and Uganda LIS programmes in meeting the demands of the digital age and reported that Library and Information Science as a discipline in Africa is continuously struggling to keep up with diverse platforms through which it can satisfy the demands of the job market. Four LIS programmes in East and West African countries were assessed in order to see if they align with the professional demands of librarians in the changing information environment. With a comparison similar to LIS programmes in the United States, the final analysis shown that although all the four programmes considered in Nigeria and Uganda are not adequately digitally inclusive, the two schools in Nigeria are even far from achieving digitally attractive LIS curricula. It was recommended that Nigeria needs to improve on the technology and electronic information management contents of their curricula to replicate the 21st Century skills required of Librarians. The findings from Kacunguzi and Samuel further influenced the need for this study as a way to investigate the state of LIS education as it prepares LIS students to become professionals in academic communities in Nigeria.

3. Methodology

For this study, survey research design was used. The design was considered suitable because it emphases on revealing the present position and beliefs that are held and requires systematic as well as scientific collection of data from the population, through the use of questionnaire. The study population consisted of 264 LIS students at two Universities in Rivers State, Nigeria. The Universities comprised one Federal and one State; the breakdown of the population is as follows: University of Port-Harcourt, Rivers State, Nigeria- 182 students; Rivers State University, Nigeria -82. (Source: Admission list from the registry). The two LIS schools were purposefully considered to be studied because they have not reached four years of delivering LIS education in Nigeria. Being new institutions, we presume that these library schools should be investigated to see how they conform to the best global practices in producing LIS graduates that will make impacts in the changing academic communities in Nigeria. We also considered the two schools suitable for the purpose of data collection to reach our targeted response rate.

With the aid of sampling frame and sampling probability proportional to size method, a total enumeration probability sampling technique method was adopted for this study. This technique was adopted because the researchers have abilities to manage the population for data collection. Also, the sampling technique was considered suitable for this study because the population is heterogeneous. Self-developed structured questionnaire that consisted of two sections was used to collect data for this study. The instrument consists of Section A that sought the demographic information of the respondents while Section B contained items/statements that centered on the four research questions formulated for the study, with appropriate response and scoring formats attached. The instrument was subjected to both face and content validities. For the trial-testing, a test-retest method was used to collect data from 15 students that were not part of the samples; cronbatch Alpha was used to determine a reliability coefficient of 0.89. Data collected was analyzed using a Statistics Package for Social Sciences (SPSS) version 16.0 output format based on simple frequency count and percentage distribution, mean, standard deviation, and Pearson's ChiSquare. Out of the 264 questionnaires that were distributed, 245 were returned and considered suitable for data analysis; this gave 93% response rate.

3.1. Results and Discussion of Findings

Respondents' Demographic Data

Fig. 1: Respondents' Level of Study at the two Universities

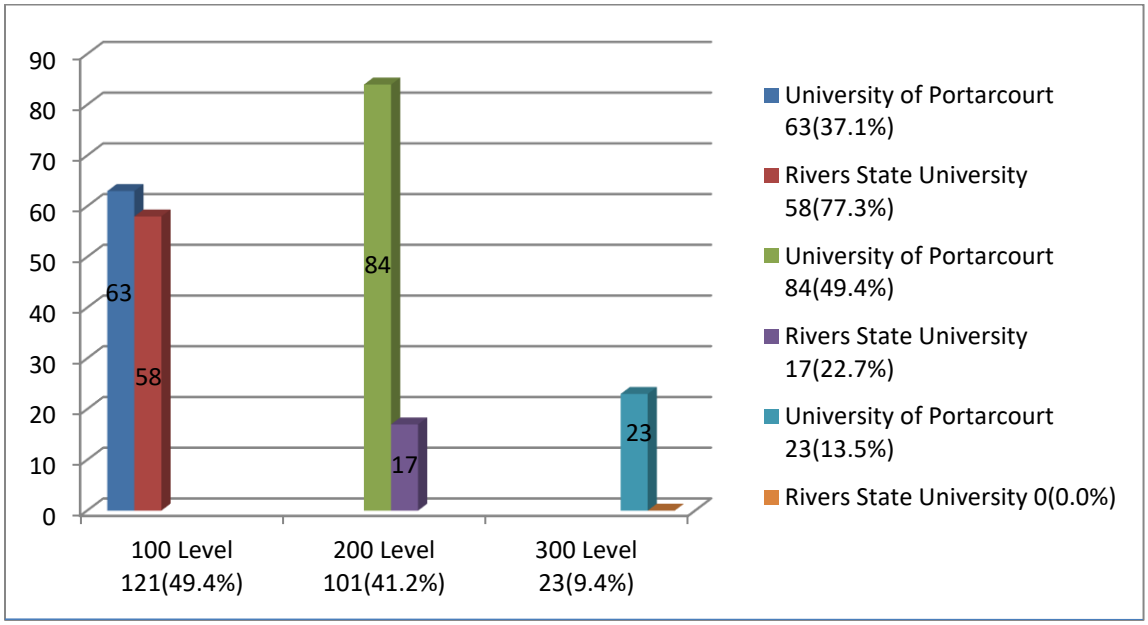
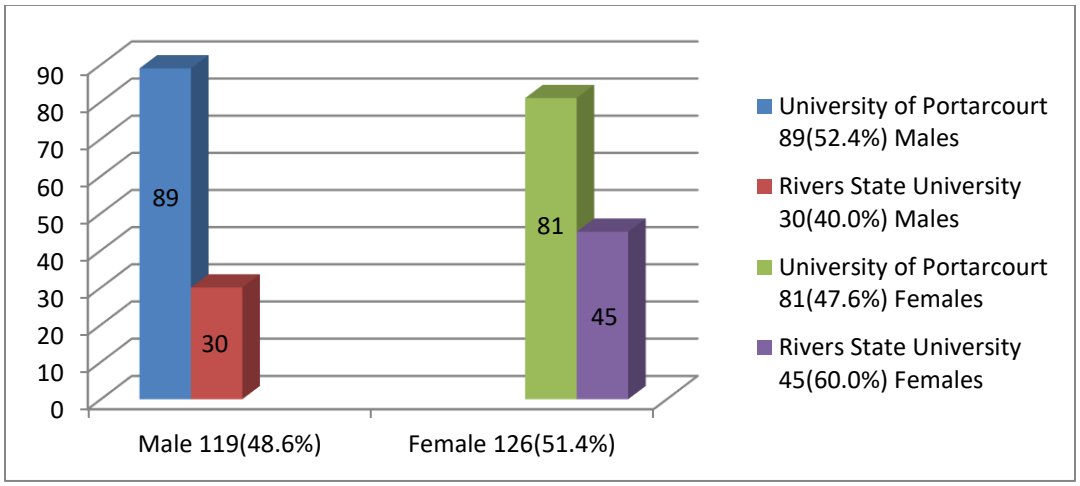


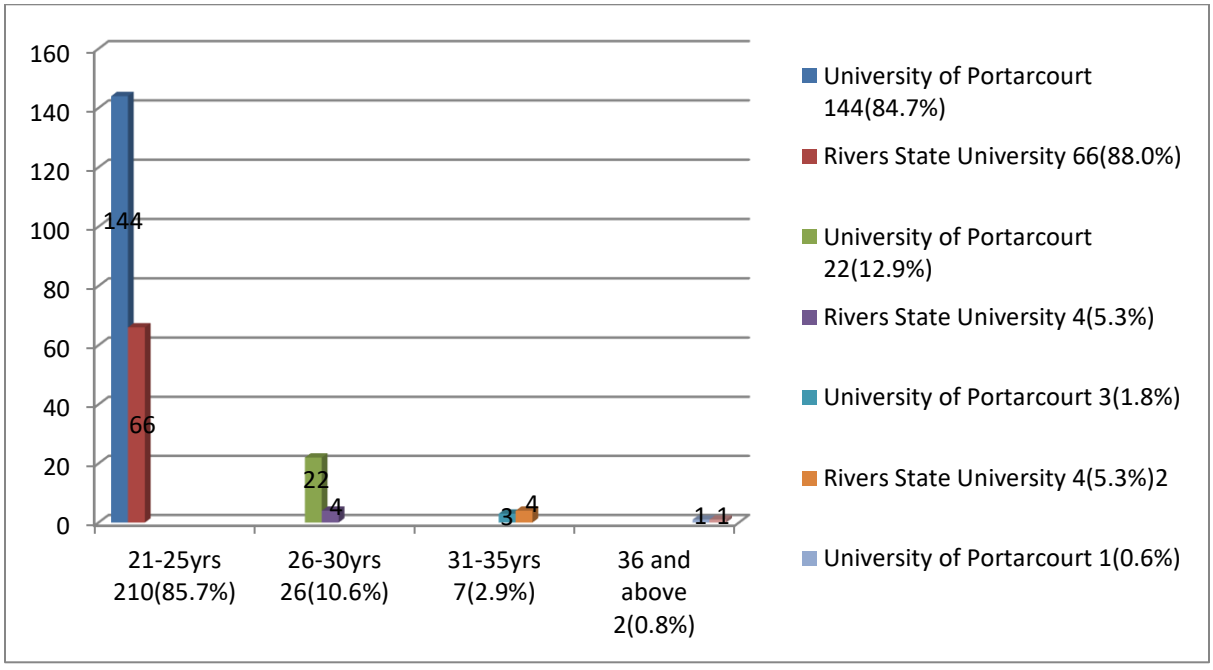
Figure 1 shows that 63(37.1%) of the respondents at University of Port-Harcourt were in 100 level while 58(77.3%) of the respondents at Rivers State University were 100 level students. 84(49.4%) of the respondents at University of Port-Harcourt were 200 level students while 17(22.7%) were in 200 level. There were 23(13.5%) respondents in 300 level at University of Port-Harcourt while Rivers State University has no 300 level students. The reason for these results is because LIS education in the two universities is new; none of them has gotten to 400 level. The implication of these results is that whatever revelation the findings of this study give may be the best of other LIS schools in Nigeria. It is believed that the LIS schools included in this study would have visited other LIS schools before the commencement of their academic programmes. Thus, findings of this study may serve as mirror through which activities of other LIS schools in Nigeria may be seen.

Fig. 2: Gender distributions of the respondents



Response rate on gender reveals that majority of the respondents 89(52.4%) at University of Port-Harcourt were males while 81 (47.6%) were female. At Rivers State University, 30(40.0%) of the respondents were males while 45(60.0%) were females. Hence, the response rate indicated that 126(51.4%) of the whole respondents were females (Fig. 2). Implication of these results is that the admission policy at University of Port-Harcourt favours males than females, or that the interest to study LIS at the University is high among male students than female. If the trend continues on this scale, there are possibilities that there would be more male LIS graduates to be produced by the University than females; this may affect gender balance at workplace in the future. For research purposes, it could be inferred that females LIS students have high sense of assistance for researchers than their male counterparts, regarding their response to research questionnaires. This is evident in the result that the highest response rate for this study was obtained from female LIS students.

Fig. 3: Age distributions of the respondents



Most of the respondents 144(84.7%) at University of Port-Harcourt and 66(88.0%) at Rivers State University giving a total response rate of 210(85.7%) were between ages 21-25 years. 22 (12.9%) of the respondents at University of Port-Harcourt and 4(5.3%) at Rivers State University, giving a total of 26(10.6%) were between ages 26-30. 7(2.9%) of the respondents from the two Universities were within age 31-35 years; while 1(0.6%) of the respondents was between age 36 and above (Fig. 3). This implies that majority of the respondents at the universities studied were still in their youthful age of university education in Nigeria. This serves as an advantage for the University Management and the academics to expose them to all the necessary skills and knowledge that will make them become well equipped for the task of information services management upon graduation.

3.2. Answer to Research Questions

Research Question 1: What is the level of awareness of LIS students in two universities in Nigeria on the emerging topics in librarianship globally?

Table 1: Awareness of the Emerging Topics Needed for the Transformation of Academic Communities

S/N	Items	University	NA	SA	A	HA
1	Cloud Computing	University of Port-Harcourt	32 18.8%	72 42.4%	37 21.8%	29 17.1%
		Rivers State University	52 69.3%	13 17.3%	7 9.3%	3 4.0%
		Total	84 34.3%	85 34.7%	44 18.0%	32 13.1%
2	Information Ethics	University of Port-Harcourt	72 42.4%	9 5.3%	55 32.4%	34 20.0%
		Rivers State University	14 18.7%	50 66.7%	6 8.0%	5 6.7%
		Total	86 35.1%	59 24.1%	61 24.9%	39 15.9%
3	Altmetrics	University of Port-Harcourt	96 56.5%	18 10.6%	33 19.4%	23 13.5%
		Rivers State University	21 28.0%	47 62.7%	7 9.3%	0 0.0%
		Total	117 47.8%	65 26.5%	40 16.3%	23 9.4%
4	Research Data Management	University of Port-Harcourt	63 37.1%	1 0.6%	28 16.5%	78 45.9%
		Rivers State University	56 74.7%	2 2.7%	9 12.0%	8 10.7%
		Total	119 48.6%	3 1.2%	37 15.1%	86 35.1%
5	Mobile Services and Marketing of Information Services	University of Port-Harcourt	9 5.3%	72 42.4%	39 22.9%	50 29.4%

		Rivers State University	4 5.3%	58 77.3%	6 8.0%	7 9.3%
		Total	13 5.3%	130 53.1%	45 18.4%	57 23.3%
N = 245; Grand Mean = 11.16; Weighted Mean = 2.23						

HA = Highly Aware, A = Aware, SA = Somehow Aware, NA = Not Aware

Table 1 shows that majority of the respondents 58(77.3%) at Rivers State University, and 72(42.4%) at University of Port-Harcourt giving a total response rate of 130(53.1%) indicated that the somehow aware that mobile services and marketing of information services are current trends in LIS education. While 78(45.9%) at University of Port-Harcourt were highly aware that Research Data Management by academic libraries can help in the transformation of academic society, 56(74.7%) at Rivers State University were not aware that Research Data Management by academic libraries can help in the transformation of academic society. However, while 47(62.7%) of the respondents at Rivers State University were somehow aware that LIS discipline can help in the transformation of academic society through the knowledge of Altmetrics, 96(56.5%) at University of Port-Harcourt were not aware that LIS discipline can help in the transformation of academic society through the knowledge of Altmetrics.

In order to determine the level of awareness of emerging topics needed for the transformation of academic society among the undergraduate students, a test of norm was conducted. Results showed that the scale between1–7 is low, 8-13 is moderate, and 14 – 20 is high. The overall mean for the awareness among the undergraduate students yielded "11.16" which falls between the scales 8-13. Therefore, it could be concluded that the level of the undergraduate students' awareness of emerging topics needed for the transformation of academic society is moderate. However, the moderate level of their awareness can be improved through classroom teachings and other trainings. This becomes imperative because LIS students in Nigeria are expected to be aware of the emerging issues in the profession as much as their counterparts in Africa and the rest of the world. Personal study through exploration of the learning possibilities made possible over the internet can also assist in this regard.

Research Question 2: What are the educational processes being used to prepare LIS students in two universities in Nigeria?

Table 2: Education Process Used for the Training of LIS students for the transformation of academic society

S/N	Items	University	SD	D	A	SA
1	Course contents are theory-based with little or no practical classes	University of Port-Harcourt	72 42.4%	47 27.6%	35 20.6%	16 9.4%
		Rivers State University	15 20.0%	57 76.0%	2 2.7%	1 1.3%
		Total	87 35.5%	104 42.4%	37 15.1%	17 6.9%
2	The classes are not participatory in nature	University of Port-Harcourt	110 64.7%	46 27.1%	7 4.1%	7 4.1%
		Rivers State University	21 28.0%	54 72.0%	0 0.0%	0 0.0%
		Total	131 53.5%	100 40.8%	7 2.9%	7 2.9%
3	No practical sessions on indexing and abstracting	University of Port-Harcourt	16 9.4%	21 12.4%	40 23.5%	93 54.7%

		Rivers State University	2 2.7%	6 8.0%	48 64.0%	19 25.3%
		Total	18 7.3%	27 11.0%	88 35.9%	112 45.7%
4	No practical classes on information literacy skills	University of Port-Harcourt	15 8.8%	45 26.5%	93 54.7%	17 10.0%
		Rivers State University	3 4.0%	11 14.7%	17 22.7%	44 58.7%
		Total	18 7.3%	56 22.9%	110 44.9%	61 24.9%
5	No formal structure for students to evaluate the lecturers	University of Port-Harcourt	14 8.2%	22 12.9%	94 55.3%	40 23.5%
		Rivers State University	2 2.7%	9 12.0%	16 21.3%	48 64.0%
			16 6.5%	31 12.7%	110 44.9%	88 35.9%
6	No practical class on digitization of information resources	University of Port-Harcourt	14 8.2%	27 15.9%	93 54.7%	36 21.2%
		Rivers State University	2 2.7%	9 12.0%	61 81.3%	3 4.0%
		Total	16 6.5%	36 14.7%	154 62.9%	39 15.9%
N = 245; Grand Mean = 15.53; Weighted Mean = 2.58						

SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

Table 2 shows that 48(64.0%) of the respondents at Rivers State University indicated that there was no practical sessions on indexing and abstracting in their department, 93(54.7%) at University of Port-Harcourt also indicated strongly that there was no practical sessions on indexing and abstracting in their department. Similarly, while 94(55.3%) at University of Port-Harcourt indicated their opinion depicting non-rating of lecturers, 48(64.0%) at Rivers State University indicated strongly that their university does not allow students to rate their lecturers at the end of each of the courses they offered. However, 110(64.7%) at University of Port-Harcourt strongly discontent, and 54(72.0%) at Rivers State University also discontent that the teaching methods being used in the classroom do not allow us to fully participate in the learning process by asking questions. This means that the teaching methods being used in the classroom allowed the students to fully participate in the learning process by asking questions. It can therefore be inferred that while the courses being taught in the LIS classes were not attached to practical support for the students, the courses were theory-based with good teaching methods on the part of the lecturers. Thus, the implication of this finding is that LIS students in the two Universities may not have practical skills on almost every aspect of the curriculum that requires practicality. This indicator poses a dangerous signal to the profile of graduates to be produced in these Universities because they may not be able to fully compete with their colleagues in Africa and the world.

Research Question 3: What educational infrastructures are available for LIS education in two universities in Nigeria?

Table 3: Availability of Educational Infrastructure for the Training LIS students

S/N	Items	University	SD	D	A	SA
1	No well-stocked computer laboratory for practical sessions	University of Port-Harcourt	116 68.2%	27 15.9%	19 11.2%	8 4.7%
		Rivers State University	64 85.3%	4 5.3%	4 5.3%	3 4.0%

		Total	180 73.5%	31 12.7%	23 9.4%	11 4.5%
2	No relevant electronic databases at departmental library	University of Port-Harcourt	31 18.2%	101 59.4%	17 10.0%	21 12.4%
		Rivers State University	46 61.3%	18 24.0%	3 4.0%	8 10.7%
		Total	77 31.4%	119 48.6%	20 8.2%	29 11.8%
3	No access to institutional Wi-Fi / internet in the department	University of Port-Harcourt	114 67.1%	20 11.8%	25 14.7%	11 6.5%
		Rivers State University	27 36.0%	47 62.7%	1 1.3%	0 0.0%
		Total	141 57.6%	67 27.3%	26 10.6%	11 4.5%
4	No Online Public Access Catalogue in the departmental library	University of Port-Harcourt	48 28.2%	90 52.9%	11 6.5%	21 12.4%
		Rivers State University	50 66.7%	17 22.7%	2 2.7%	6 8.0%
		Total	98 40.0%	107 43.7%	13 5.3%	27 11.0%
5	No modern digitization equipment in the department for practical sessions	University of Port-Harcourt	21 12.4%	54 31.8%	84 49.4%	11 6.5%
		Rivers State University	3 4.0%	13 17.3%	15 20.0%	44 58.7%
		Total	24 9.8%	67 27.3%	99 40.4%	55 22.4%
6	No internet-networked interactive white boards in the department	University of Port-Harcourt	42 24.7%	78 45.9%	31 18.2%	19 11.2%
		Rivers State University	53 70.7%	16 21.3%	4 5.3%	2 2.7%
		Total	95 38.8%	94 38.4%	35 14.3%	21 8.6%
7	No Resource Description and Access (RDA) toolkit in my department	University of Port-Harcourt	23 13.5%	43 25.3%	33 19.4%	71 41.8%
		Rivers State University	10 13.3%	5 6.7%	48 64.0%	12 16.0%
		Total	33 13.5%	48 19.6%	81 33.1%	83 33.9%
8	No teleconference infrastructures in my department	University of Port-Harcourt	25 14.7%	36 21.2%	91 53.5%	18 10.6%
		Rivers State University	10 13.3%	3 4.0%	16 21.3%	46 61.3%
		Total	35 14.3%	39 15.9%	107 43.7%	64 26.1%
N = 245; Grand Mean = 17.32; Weighted Mean = 2.17						

Information in Table 3 shows that majority of the respondents 48(64.0%) at Rivers State University indicated that their department does not have Resource Description and Access (RDA) toolkit. In the same way, 71(41.8%) at University of Port-Harcourt indicated strongly that their department does not have Resource Description and Access (RDA) toolkit. Similarly, 46(61.3%) at Rivers State University indicated strongly that there were no teleconference infrastructures in their department while, 91(53.5%) at University of Port-Harcourt also indicated that there were no teleconference infrastructures in their department. However, 116(68.2%) at University of Port-Harcourt and 64(85.3%) at Rivers State

University giving a total response rate of 180(73.5%) discontented strongly that their department does not have a well-stocked computer laboratory for practical sessions. In other words, the department had well-stocked computer laboratory for practical sessions in both universities.

In order to determine the level of availability of educational infrastructure for training LIS students, a test of norm was carried out. Results revealed that the scale between 1–10 is low, 11 – 20 is moderate, and 21–32 is high. The results yielded a grand mean of 17.32 which falls between the scale 11–20. Therefore, it could be inferred that level of availability of educational infrastructure for training LIS students was moderate. This result does not deny the fact that there were certain modern facilities that were available at the two Universities; it only gives the overall level of availability of modern infrastructures needed for the training of librarians in Nigeria. The moderate level of infrastructure availability means that there is room for improvement in order to prepare upcoming librarians at library schools in Nigeria using the modern infrastructures with which they will practice when they get to their respective fields.

Research Question 4: What are the methods of evaluation being used for LIS students in two universities in Nigeria?

Table 4: Evaluation of LIS students for the transformation of academic society

S/N	Items	University	SD	D	A	SA
1	Placement Evaluation, i.e. previous achievement or personal characteristics	University of Port-Harcourt	79 46.5%	30 17.6%	40 23.5%	21 12.4%
		Rivers State University	58 77.3%	6 8.0%	7 9.3%	4 5.3%
		Total	137 55.9%	36 14.7%	47 19.2%	25 10.2%
2	Formative Evaluation, i.e. based on feedback on the progress towards mastery of relatively small units of learning	University of Port-Harcourt	6 3.5%	79 46.5%	54 31.8%	29 17.1%
		Rivers State University	43 57.3%	16 21.3%	14 18.7%	2 2.7%
		Total	49 20.0%	95 38.8%	68 27.8%	31 12.7%
3	Diagnostic Evaluation, i.e. identification of learning behaviour not directly related to instructional practices	University of Port-Harcourt	81 47.6%	46 27.1%	37 21.8%	6 3.5%
		Rivers State University	15 20.0%	47 62.7%	13 17.3%	0 0.0%
		Total	96 39.2%	93 38.0%	50 20.4%	6 2.4%
4	Summative Evaluation, i.e. award of mark to the successful completion of large units courses	University of Port-Harcourt	8 4.7%	26 15.3%	45 26.5%	91 53.5%
		Rivers State University	1 1.3%	3 4.0%	11 14.7%	60 80.0%
		Total	9 3.7%	29 11.8%	56 22.9%	151 61.6%
5	I am being evaluated using No. 4 and any other method above	University of Port-Harcourt	18 10.6%	87 51.2%	30 17.6%	35 20.6%
		Rivers State University	46 61.3%	16 21.3%	11 14.7%	2 2.7%
		Total	64 26.1%	103 42.0%	41 16.7%	37 15.1%
6	I do not know how I am being evaluated in my	University of Port-Harcourt	92 54.1%	30 17.6%	29 17.1%	19 11.2%

	department	Rivers State University	58 77.3%	6 8.0%	3 4.0%	8 10.7%
		Total	150 61.2%	36 14.7%	32 13.1%	27 11.0%
N = 245; Grand Mean = 13.56; Weighted Mean = 2.26						

Table 4 shows that most of the respondents 60(80.0%) at Rivers State University, and 91(53.5%) at University of Port-Harcourt giving a total response rate of 151(61.6%) indicated strongly that they were evaluated by award of mark or attestation to the successful completion of a relatively large unit of instruction (summative evaluation). However, majority of the respondents 43(57.3%) at Rivers State University discontented strongly while, 79(46.5%) at University of Port-Harcourt also discontented that their lecturers evaluate them based on feedback on the progress towards mastery of relatively small units of learning (formative evaluation). In addition, 92(54.1%) at University of Port-Harcourt and 58(77.3%) at Rivers State University giving a total response rate of 150(61.2%) discontented strongly that they do not know how they were being evaluated in their department. This implies that the most of the respondents in both universities were aware of how they were being evaluated. However, as much as the results shown that the respondents know how they were being evaluated, it was revealed that the evaluation of LIS students in the two Universities was summative in nature. This method however requires review as one method of evaluation may not adequately cover cognitive, affective and psychomotor abilities of LIS students. Therefore, blended methods of evaluation may be adapted to further aid to reveal specific areas of strengths and weakness of the students.

3.3. Conclusion and Recommendations

The study has maintained that several transformations are currently going in Nigeria's academic communities. Essentially, librarians are parts of the major stakeholders that work towards the attainment of institutional goals and objectives through the management of information resources and services. The ongoing changes however may pose serious threats to the relevance of librarians if they are unable to remain at the forefront to drive the change. Consequently, the study maintained that investigation into the current state of Library and Information Science education, with the strong focus on students' awareness on emerging trends, educational infrastructures, educational process, and methods of evaluation is imperative at this time. The study upheld that, for LIS graduates to be able to meet up with the current and emerging market demands, certain components need to be included in the educational curriculum being used to educate LIS students who will become the game-changers in the society. The study revealed LIS students' awareness of emerging topics in the transformation of academic society in Nigeria; educational processes being used in the training LIS students; evaluate educational infrastructures that are available for the training of LIS students and the methods by which LIS students are being evaluated for the transformation of academic society. Based on the findings of this study, the following recommendations are made:

i. Librarians' Registration Council of Nigeria (LRCN), Nigerian Library Association (NLA) and other major stakeholders should expedite actions on the review of LIS curriculum in Nigeria. Topics like: Information Ethics, Research Data Management, Cloud Computing, Altmetrics, and Mobile Services should be included among others.
ii. LIS schools in Nigeria should ensure there are practical sessions on topics like: Information Literacy, Indexing and Abstracting, as well as digitization. Students should also be allowed to evaluate their lecturers.
iii. LIS schools studied should make effort to maintain the infrastructures that they have. Efforts should be made to acquire RDA Toolkit and digitization equipment so that students can be familiar with them.

iv. Since education is a process, aside awarding marks after exams, LIS schools should find a unified ways of evaluating students' cognitive, affective, and psychomotor skills.

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