

Analyses of Awareness, Perception and Attitude towards Embedded Librarianship among Librarians in North-Eastern Universities, Nigeria

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Abstract - Innovations in library services and need for professional development among librarians with growth in research have brought to bear on the concept of embedded librarianship as a new research area in librarianship. It is expected that librarians in Nigeria must do all to move with the current trend in the discipline. This study aims to under the roles of awareness, attitude and perception of academic librarians in North-east Nigeria towards embedded librarianship practice. A survey of 11 university libraries in the region was undertaken with 356 conveniently selected samples. The descriptive result indicates a high level of awareness while attitude and perception recorded significant agreement to answer the research questions. The null hypothesis of non-significant effect of awareness, perception and attitude on embedded librarianship among academic librarians in university libraries in the north-east, Nigeria was rejected at $F(3: 352) = 2376.807$, $P < .0005$, $R^2 = .953$ and was replaced with the alternate hypothesis. The study concludes that academic librarians in the study area have a high awareness level, positive attitude and perception about embedded librarianship. However, the actual practice of the term is still low from the practical assessment.

Keywords: Embedded Librarianship, Academic Library, Librarian, Academic Services

I. INTRODUCTION

Growing research and innovation with attendant technological advantage has brought transformations in librarianship. The conversion of most librarians into academic status among some university libraries in most countries of the world including Nigeria has placed more responsibilities on the staff. As a result, the criteria for promotion of academic librarian must follow an academic routine with the publication, time in rank and academic engagement inclusive. Prior to recent development in librarianship and coining of the term embedded librarianship by Dewey (2005), librarians have engaged in research and information services to their respective communities (Brower, 2012), however, this activity was labelled as one of the primary roles of the librarian as an information officer. In recent time, community information services are seen as one of the main job descriptions of every librarian. Moreover, challenges of low budget and disaffection which resulted in the closure of some libraries in the developed countries (Coates, 2019) is eminent among the developing countries, therefore embedding into community and academic services provides a way out. Consequently, Stuart (2017) posits that with the rise of the

internet and electronic research resources, it is not uncommon for a librarian to hear that libraries are no longer necessary. Therefore, Drewes and Hoffman (2010) proposed that librarians in the faculty and departmental libraries should engage in research, information services, academic activities etc. embedding the activities of the librarian within the community of users was first called embedded librarianship by Dewey in (2005). Therefore, embedding the librarians, and creating a link between the libraries and the learning community is considered as a step towards professional redefinition and an antidote to challenges in the field as well.

Embedded librarianship is an aspect of the discipline which currently attracts interest among researchers globally (Helms & Whitesell, 2013; Inuwa & Abrizah, 2018). Studies revealed that there is no generally agreed definition of the term (Si, Xing, Zhou & Liu, 2012), however, the authors stated that embedded librarianship is a term used to identify the act of Librarians incorporating effectively into the client's environments, as opposed to staying in the library to anticipate users' demands for services. It is an active oriented service as pointed out by Drewes and Hoffman (2010), "the librarians involved in the spaces of their users, either physically or through the technology in order to become a part of their culture". Shading greater light, Shumaker and Talley (2009) state that embedded librarians activity take part in relationship building exercises, for example, going to conferences and meetings from their clients area of specialization, frequently have broad learning of their clients' work, and perform complex examination just as of for explicit services over the basic services anticipated from their non-embedded partners.

Dene (2011) defined embedded librarianship as "an integral part to the whole based on the geological definition of an embedded element", and this view corroborates according to Shumaker's (2012) view that embedded librarianship "involves the delivery of highly customized and highly valued information and knowledge services to a customer group with well-defined needs". Librarians are expected to frequently work with faculty and department in creating assignments or even make assignments themselves. Librarians who are embedded in course management systems (CMSs) effectively take an interest in online classes, participate in students' project supervision, library use instructions, information literacy classes, assignments,

and other instructional technologies for use in class. Shumaker (2012) posits that a “relationship, shared goals, and customized, high-value contributions” (p. 6) are the main factors that describe embedded librarianship. The author stated that anticipatory services, a team of collaborators, customized; ongoing projects; and partnership are clear differences between embedded and traditional librarian. These assertions corroborate Kesselman and Watstein (2009) description of embedded librarianship as a combination of two factors, integration and collaboration by participating in a “collaborative learning environment whether in a traditional or non-traditional setting.” Therefore, “the librarian becomes a member of the customer’s community rather than a service provider standing apart” (Si, Xing, Zhou, & Liu, 2012).

Studies have indicated the presence of embedded librarianship in some Nigerian university libraries (Inuwa & Abrizah, 2018; Agboola, Manuwa & Aduku, 2018; Igbinovia, 2017; Emezie, 2018), however, the situation analyses are nothing compared to the scenario in most developed and developing countries. Available studies are deficient in empirical evidence, moreover, the socio-demographic characteristics such as awareness, attitude and perception of the librarians which determine compliance and practice of embedded librarianship have not been investigated empirically.

Awareness, attitude and perception towards a system or product are significant factors in adoption and compliance, their roles have been studied by researchers in various contexts. (DeLavega, 2004; Pathmanathan & Lakshmanan, 2014; Aminrad, Zakariya, Hadi, & Sakari, 2013).

Awareness is used to indicate the users’ experience, understanding, and motivation (Abe & Didham, 2013), attitude and perception are psychological traits which are triggered by users’ experience and understanding of the product, service, motivation and level of satisfaction which reflects on the users’ instinctive judgements (Madu, Haruna & Rajapakse, 2019). Librarians’ understanding of embedded librarianship and motivation are integral to a positive attitude or behaviour. Perception of the librarians will be influenced by their attitude which altogether is developed by the awareness of embedded librarianship. This study aims to reveal the influence of awareness, attitude and perception of librarians on embedded librarianship in the north-east, Nigeria.

II. LITERATURE REVIEW

As new and trending area of research in librarianship, embedded librarianship is a continuation of an existing “tradition of innovative library services, especially in reference and instruction” (Calkins & Kvenild, 2010) which is intended to “move the librarians from a supporting role towards a partnership role, enabling them to work in collaboration with students and patrons” (Vijesh, Anitha & Rehana, 2017). Embedding academic librarianship has

become an innovation to opportunity (Kesselman & Watstein, 2009), in spite of factors such as dwindling reference services, inadequate budgets and layoff, and fear of loss of relevance to the academic community, the embedded librarian bridges the resources and services gap with the users. An embedded librarian can operate “physically or virtually in a classroom or a department to provide information support for a particular course to students and academic staff” (Hoffman 2011; Si *et al.*, 2012), in the library with online presence, the embedded librarian is regarded as very useful in the library’s online courses and information literacy programmes (Si *et al.*, 2012; Kumar & Edwards, 2013).

Sheingold and Harrod (2013) “examined the perceived impact of librarians’ embedment for distance education by nursing masters’ students from George Washington University”. Results revealed that the students strongly agreed that embedded librarians presence positively influenced their scholarly activities during their candidature. While examining embedded librarianship in a new horizon of librarianship, Talwar (2014) explored the core competency, skills and attributes expected of an embedded librarian. The skills according to the author include personal and People-centric competencies, while personal competencies comprised lifelong learning ability, adaptability and to be able to work independently. People-centric competencies include teamwork, networking, etc. while the attribute include ability to be technocratic, possess information ethics abs prudent etc. Further, embedded librarian must possess generic skills among which are “communication and interpersonal skills, critical thinking, problem solving and teamwork which allow individuals to function not only in disciplinary or subject domains but also in employment and social situations, while including managerial and technical skills (463).

Considering an embedded librarian “beyond the library walls”, Matava, Coffey and Kushkowsky (2010) undertook a case study of three librarians who embedded themselves in the department. They concluded that it is beneficial to embed librarian in faculties and departments where students and faculty members’ access information and department where the professors need information for research while in their offices. Similarly, Bennett and Simning (2010) in a Correlational study of embedded librarians and reference traffic of Psychology graduate students at an online university through observation. The result revealed that embedded librarians postings in online course statistically significantly correlated to a number of reference transactions at $R=0.491$; $p=0.010$. An empirical study by Shumaker and Talley (2010) on services offered by embedded programmes revealed that “80% of those embedded librarians surveyed train users, provide ready reference, perform in-depth”, typical “research and work in resource development. Highly technical tasks such as creating information architecture, using analytical software”, computer and networks system “management were performed by less than 20% of the respondents”.

Kvenild, Tumbleson, Burke and Calkins (2016) analysed the Academic Librarians' report of the state of embedded librarianship in learning management systems. The report indicated an increasing demand for library services in learning management systems. This agrees with Schulte's (2012) idea that embedded librarian should engage in creating e-learning instructional materials and tutorials in addition to other services.

III. STATEMENT OF THE PROBLEM

The roles of libraries have been regarded as information provider which is basic on "information service delivery, rather than knowledge creation" (Inuwa&Abriza, 2018) while academic librarians merely assist researchers through their conventional roles which border on "information discovery, collection development and some elements of information management" (Auckland, 2012). This according to Inuwa and Abriza (2018) has hindered the academic librarians from maximising their potentials in knowledge creation and contribution in teaching and learning development (Mcnicol, 2004). Recent transformation in the field of academic librarianship has created the need for the professional to engage in research, fill the institutional research gap and enhance their carrier as well. In prior times, academic librarians in Nigeria have engaged in embedded services through education, research and information services in collaboration with faculty and departmental members (Oyelude, 2013), but these services have been regarded as the traditional roles of the librarians. Awareness of the current concept and roles of the librarian has not been defined in the context of embedded librarianship. Moreover, the attitude and perception of librarians in the North-east has not been empirically investigated.

IV. OBJECTIVES OF THE STUDY

This study aims to identify the

1. Level of awareness of embedded librarianship among librarians in academic libraries in the north-east, Nigeria.
2. Perceptions of embedded librarianship among librarians in academic libraries in north-east, Nigeria.
3. Attitude towards embedded librarianship among the librarians in academic libraries in north-east, Nigeria.

V. RESEARCH QUESTIONS

This study was guided by the following research questions

1. What is the level of awareness of embedded librarianship among librarians in academic libraries in the north-east, Nigeria?
2. What are the perceptions of librarians on embedded librarianship in academic libraries in north-east, Nigeria?

3. What are the attitudes towards embedded librarianship among the librarians in academic libraries in north-east, Nigeria?

VI. RESEARCH HYPOTHESIS

This study was guided by a null hypothesis

H_0 : There is no statistically significant effect of awareness, perception and attitude on embedded librarianship among academic librarians in university libraries in north-east, Nigeria.

VII. RESEARCH METHODOLOGY

The study used a survey method with questionnaire as data collection instrument to elucidate information from 356 respondents drawn from ten (11) university libraries in North-east Nigeria through convenient sampling technique which is a form of the non-probability sampling method. The questionnaire was designed into two sections, section one is the respondents' demographic information. Section two is made up of three clusters that cover the objectives and research questions. Level of awareness was measured with four items in five-point Likert scale 1, (very low) to 5 (very high). Also, attitude and perception were measured with four items each in five points Likert scale, 1 (strongly disagrees) to 5, (strongly agree). Descriptive method of analyses was employed to answer the research questions. This was achieved through the observation of frequencies, percentages and cumulative means. While regression analyses were used to test the null hypotheses. The results were presented in figures and tables where necessary.

VIII. DATA ANALYSES

Three hundred and fifty-six copies of the questionnaires were confirmed valid out of the four hundred and twenty administered in eleven research centres. The reliability of the questionnaire was established through Cronbach's Alpha value of .948, .969, .966, .898 and .981 for librarian's awareness, perception, attitude, and embedded librarianship respectively. These were more than the benchmark value for reliability test according to Byrne (2010). The validity of the instruments was established through multicollinearity test, with variance inflation factors (VIF) of 6.022, 6.571 and 6.746 for awareness, perception and attitude which are less than 10 as suggested by Myers, (1990). The instrument was considered reliable and valid for further analyses.

IX. DESCRIPTIVE ANALYSES

Respondent's gender, library and qualification were analysed. According to the information regarding gender of respondents, 356 of the respondents in the study, 190(53.4%) were male while females were 165(46.6%). According to the responses, result in figure (1) showed that University of Maiduguri had the highest respondents with

76 (21.3%), followed by Modibbo Adama University of Technology, Yola with 50(14%) and Abubakar Tafawa Balewa University Library, Bauchi 38(10.7%). Federal University Wukari library and Gombe state university library had 32 (9%) and 28(7.9%) respectively. Others include Taraba State University Library 26(7.3%), Yobe State University Library 26(7.3%), Adamawa State University library 23(6.5%), Bauchi State University Library 22(6.2%), Federal University Kashere Library 22(6.2%) and Federal University Gashua Library 13(3.7%) in that order. The population include librarians with a bachelor degree and above, and those with a diploma but engaged in further study in their institutions.

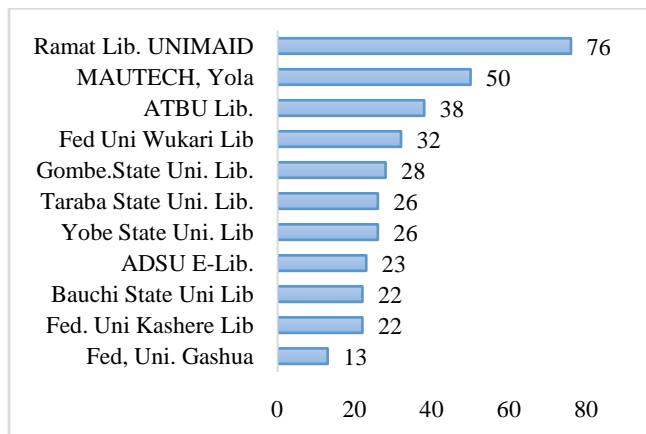


Fig. 1 Distribution of Respondents according to Libraries

The distribution of respondents according to qualification is presented in table I. It showed that librarians with bachelors’ degree in library science and library and information science are the highest with the frequency of 186 which represents 54.25%. It was followed by masters’ degree holders in Library Science and Information Science with 113(31.70%), PhD holders accounted for 7(1.97%) while diploma certificate holders made up 50(14.05%) of the total respondents in the study.

TABLE I QUALIFICATION OF THE RESPONDENTS

Qualification	Frequency	Percentage
PhD	7	1.97
MLS/MLIS	113	31.70
BLS/BLIS	186	54.25
Dip. LIS	50	14.05
Total	356	100%

A. Research Question 1: What is the level of Awareness of Embedded Librarianship among Librarians in Academic Libraries in North-east, Nigeria?

The awareness of embedded librarianship by librarians was measured in five points Likert scale according to their level of awareness. Item one is awareness of the growing research in EML, the result in table II revealed that 165(46.3%) respondents indicated very high awareness; 73(20.5%) indicated a high level of awareness. Also, 65(18.3%) were undecided to the statement while 36(10.15) and 17(4.8%) indicated very low and low awareness of growing research on EML respectively. Regarding awareness of the benefits of EML, 149(41.9%) and 88(24.7%) indicated high and very high awareness respectively. On the other hand, 64(18.0%) were undecided to the statement while 38(10.7%) recorded low awareness and 17(4.8%) indicated very low awareness of the benefits of EML. Awareness of the existence of embedded library services in the past recorded high responses with 162(45.3%) and 97(27.2%) indicated very high awareness. Similarly, 40(11.2%) were undecided while 36(10.1%) and 21(5.9%) respondents’ awareness was low and very low respectively. On the need to be an embedded librarian, 135(37.9%) and 92(25.8%) indicated high and very high awareness while 50(14%) were not decided. However, 58(16.3%) and 21(5.9%) indicated low and very low awareness respectively. With a cumulative mean of 3.70, out of 4 points on the scale, the awareness of the librarians in northeast university libraries could be adjudged high.

TABLE II LEVEL OF AWARENESS OF EMBEDDED LIBRARIANSHIP AMONG THE LIBRARIANS IN ACADEMIC LIBRARIES IN NORTH-EAST, NIGERIA

Items	Statements	VL	L	U	H	VH	Mean
Embedded 1. Awareness	I am aware of growing research in embedded librarianship	17 (4.8%)	36 (10.1%)	65 (18.3%)	165 (46.3%)	73 (20.5%)	3.68
Embedded 2. Awareness	Awareness of the benefits of embedded librarianship	17 (4.8%)	38 (10.7%)	64 (18.0%)	149 (41.9%)	88 (24.7%)	3.71
Embedded 3. Awareness	I am aware embedded library services have long been practised by librarians	21 (5.9%)	36 (10.1%)	40 (11.2%)	162 (45.5%)	97 (27.2%)	3.78
Embedded 4. Awareness	I recognise the need to be an embedded Librarian	21 (5.9%)	58 (16.3%)	50 (14.0%)	135 (37.9%)	92 (25.8%)	3.62
Cumulative Mean							3.70

B. Research Question 2: What are the Perceptions of Librarians on embedded librarianship in Academic Libraries in North-east, Nigeria?

Various perceptions of the term embedded librarianship by the librarians in the selected university libraries in North-

east, Nigeria was measured with four (4) items statement. The necessity of embedded librarianship (EML) as perceived by librarians in table III revealed that 14(39.6%) agreed to the statement, 85(23.9%) strongly agreed while 68(19.1%) were undecided regarding the statement. However, 46(12.9%) and 16(4.5%) disagreed and strongly

disagreed respectively regarding the perception of EML as a necessity among librarians in the study university libraries. Furthermore, Perception of EML as a move in the right direction, 124(34.8%) indicated strongly agreement, 113(31.7%) indicated agree to the statement while

60(16.9%) were undecided to the statement. On the other hand, 43(12.1) and 16(4.5%) respondents disagreed and strongly disagreed with the statement. A cumulative mean average of 3.73 indicates strong agreement to statements regarding the librarian's perception of EML.

TABLE III PERCEPTION OF LIBRARIANS ON EMBEDDED LIBRARIANSHIP IN ACADEMIC LIBRARIES IN NORTH-EAST, NIGERIA

Items	Statements	SD	D	U	A	SA	Mean
1.Perception	I consider EML necessary for every academic librarian	16 (4.5%)	46 (12.9%)	68 (19.1%)	141 (39.6%)	85 (23.9%)	3.65
2. Perception	EML is the move in the right direction in librarianship	16 (4.5%)	43 (12.1%)	60 (16.9%)	113 (31.7%)	124 (34.8%)	3.80
3. Perception	EML will enhance collaboration with department and faculty members	21 (5.9%)	43 (12.1%)	51 (14.3)	139 (39%)	102 (28.7%)	3.72
4. Perception	EML is good for research and students engagement	22 (6.2%)	45 (12.6%)	45 (12.6%)	133 (37.4%)	111 (31.2%)	3.75
Cumulative Mean							3.73

C. Research Question 3: What are the attitudes of Librarians towards Embedded Librarianship in Academic Libraries in the North-east, Nigeria?

The attitude of the librarians in northeast university libraries was measured with four items in a five-point Likert scale. According to the result in table IV, 119(33.4%) respondents strongly agreed that EML gave them a sense of accomplishment in their career 131(36.8%) agreed to the statement while 73(20.5%) were undecided. However, 22(6.2%) respondents disagreed and 11(3.15) strongly

disagreed to the statement. The essence of embedded librarianship is to take the librarians into the community and beyond the physical library walls. 114(325) respondents strongly agreed. Also, 134(37.6%) agreed to the statement while 70(19.7%) did not make any statement. Similarly, 26(7.3%) disagreed while 12(3.4%) strongly disagreed to the ability of EML to take the librarians beyond the physical library walls. With a cumulative mean of 3.95, the librarians in northeast university librarians are positive about EML and would like to be embedded.

TABLE IV ATTITUDE OF LIBRARIANS TOWARDS EMBEDDED LIBRARIANSHIP IN ACADEMIC LIBRARIES IN THE NORTH-EAST, NIGERIA

Items	Statements	SD	D	U	A	SA	Mean
Attitude1	Embedded librarianship gives me sense of accomplishment	11 (3.1%)	22 (6.2%)	73 (20.5%)	131 (36.8%)	119 (33.4%)	3.91
Attitude2	Embedded librarianship will take me beyond the physical library walls	12 (3.4%)	26 (7.3%)	70 (19.7%)	134 (37.6%)	114 (32%)	3.88
Attitude3	I have positive feelings about being embedded librarian	10 (2.8%)	21 (5.9%)	69 (19.4%)	141 (39.6%)	115 (32.3%)	3.93
Attitude4	Embedded librarianship will give me job satisfaction	8 (2.2%)	13 (3.7%)	62 (17.4%)	135 (37.9%)	139 (38.8%)	4.07
Cumulative Mean							3,95

X. REGRESSION ANALYSES AND HYPOTHESIS TESTING

H₀: There is no statistically significant effect of Awareness, Perception and Attitude on Embedded Librarianship among Academic Librarians in University Libraries in North-east, Nigeria.

Multiple regression was run to test the null hypothesis which predicted the non-significance effect of awareness, perception and attitude on embedded librarianship among academic librarians in university libraries in the north-east, Nigeria. The hypothesis was tested through multiple linear regression with embedded librarianship as the dependent variable. According to the result in table V, a multiple correlation coefficient (R) indicates a measure of the quality

of the prediction of embedded librarian and value of .976 is considered a good prediction (Field, 2009:268). The R-Square also is known as the coefficient of determination is the proportion of variance in embedded librarianship that can be explained by awareness and perception, therefore. This means that 95.3% variance in EML is explained by awareness and perception in this study.

TABLE V MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.976	.953	.953	.240

The F-Ratio in table VI showed that awareness, perception and attitude had statistical significance effect on embedded

librarianship with $F(3,352) = 2376.807$, $P < .0005$, The multiple regression results showed that awareness, perception and attitude had a statistically significant effect on embedded librarianship $F(3: 352) = 2376.807$, $P < .0005$,

$R^2 = .953$. The hypothesis which predicted a non-statistical significance effect of the independent variables on embedded librarianship is therefore rejected while the alternate hypothesis is therefore accepted.

TABLE VI ANOVA TABLE FOR THE TEST OF SIGNIFICANCE

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	411.936	3	137.312	2376.807	.000 ^b
Residual	20.336	352	.058		
Total	432.272	355			

- Dependent Variable: EMBEDLIB
- Predictors: (Constant), ATTITUDE, AWARENESS, PERCEPTION

X. DISCUSSION

The need to understand the level of awareness attitude and perception of librarians in the academic institutions in the northeast of Nigeria informed this study. According to the descriptive results, the level of awareness of embedded librarianship is high with the frequency of 611 out of 1414 responses to four awareness statements. This is corroborated by Inuwa & Abriza (2018), Agboola, Manuwa & Aduka (2018), Igbinovia (2017) and Emezie (2018) even though the level is not as high as in developed countries. Also, 526 out of 1364 responses agreed to the statements regarding the librarians' perception of embedded librarianship. Similarly, the attitude test yielded 1425 responses out of which 541 agreed to the statements.

Despite low compliance to embedded services, librarians are aware of the move towards embedding the librarians into services outside the library building, moreover, their attitude and perception could be adjudged to be positive based on the result. The result of the hypothesis revealed that awareness, attitude and librarians' perception are vital factors for the practice of embedded librarianship. This agrees with the work of Delavega (2001), Pathmanathan & Lakshmanan (2014), Aminrad, Zakariya, Hadi & Sakari (2013). Though there is no empirical literature in Nigerian context to support this finding, this study, therefore, provides a strong foundation for further studies on embedded librarianship.

XI. CONCLUSION

There is a growing awareness of the concept of embedded librarianship among librarians in the northeast, Nigeria as evidenced in the present study. However, physical assessment of actual practices indicates slow compliance which stems from non-definition of objectives by the libraries. Notwithstanding, the librarians have a significant level of perception and positive attitude towards embedded librarianship. There is a need for further research to investigate the factors for embedded librarianship. This will reveal the key hindrances and enablers of embedded librarianship among academic librarians in Nigeria.

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