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An Assessment of the Relationship between Information Literacy Competencies and Academic Productivity amongst Staff in Nigerian Universities in North Central Geographical Zone

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ABSTRACT

The study examined the extent to which information literacy correlates with academic productivity in Nigeria universities in North-central geopolitical zone. The design for this study is correlation survey, that is one using a statistical techniques for establishing relationship. The population of the study comprised 2810 academic staff in the 12 universities in the zone. A total of 421 academic staff (15%) of the population from 6 universities selected through Multi-stage sampling techniques were involved as sample for this study. Two instruments, a Standard Information literacy test and an Academic Productivity Index were used to collect data for this study. The data collected were analysed with the use of Pearson's Correlation. Result revealed that the coefficient is 0.692. the t-value for the test of significance relationship between information literacy competencies and the productivity of academic staff is 17.025. The hypothesis is rejected hence there is a significant relationship between information literacy competencies and the productivity of academic staff. It is therefore recommended that the academic staff should take advantage of the enabling environment to enhance their level of information literacy competence which will have positive effect on their research output.

Keywords: *Information, literacy, competencies, staff academic, productivity, Nigeria, Universities*

1. INTRODUCTION

Information literacy is increasingly having a pervasive impact on the character of information handling and services. This is not unconnected with the exponential growth of information resources and the resultant complexity of information environment. With this complexity of information environment, what remains open to question is how the information users can take full advantage of the proliferating information resources to enhance their performance in their academic studies, in their work place and in personal life. According to Abell and Skelton (2005) in the work place, it is hard to gain acceptance of information literacy now as it once was of knowledge management. Information comes to individual in unfiltered formats; the challenge therefore is how to find, evaluate and use information in an ethical manner. There is therefore the need for a complementary cluster of abilities necessary to use information effectively as a mere abundance of information does not in itself create a more informed citizenry.

According to the American library Association ALA (2008), information literary is a set of abilities that enable individuals to "recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information. Information literacy forms the basis for lifelong learning (Etim and Nssien 2007). According to them, it is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed and assume greater control over their own learning. An information literate individual is able to:

- Determine the information needed;
- Access the needed information effectively and efficiently;
- Evaluate information and its sources critically;
- Incorporate selected information into one's knowledge base;
- Use information effectively to accomplish a special purpose;
- Understand the economic, legal and social;
- issues surrounding the use of and access;
- Information ethically and legally (ALA 2008)

Ultimately information literate persons are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in an appropriate manner, (information literacy guide, 2008).

The information gap created by rapid technologies change and proliferation of information resources has made it necessary to look for new ways and abilities to use information effectively, especially for research among the academics, hence the need to examine the relationship between information literacy and academic productivity in Nigerian universities.

Academic productivity in relation to the objective of university education is therefore seen as the measure of the required output expected of an academic staff. Academic analytics (2008) which specializes in the creation of the faculty scholarly productivity index has what it called the only objective measure of faulty productivity. According

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to Academic Analytics, the index or competencies for academic productivity include.

- How many books written
- How many journal articles written
- How many grants won
- How many times publications have been cited
- How many awards won?
  (htt;//www.academicandytics.com).
- This outlined academic productivity base as outlined by academic analytics is used in this study as the measure of academic productivity.
- This is also in line with the role and functions of university education the world over.

2. LITERATURE REVIEW

Information Literacy Attributes and Relationship with Academic Productivity

In an assessment of the relationship between information literacy skills and information for research, the Purdue On-line writing lab as cited by Igbo (2008), argued that it is necessary for one to decide where to look, what clues to search for and what to accept especially now that we are faced with staggering quality of information.

Armstrong (2005) asserts that understanding availability of resources requires the researcher to have the ability to identify what resources are available, for exploitation, where they are available, how to access them, the merits of individual resource, type and when it is appropriate to use them. This may have great implication for researchers. There is therefore the need to determine how it affects academic staff productivity.

Apart from the need to access information, academic staff also has the need to evaluate the accessible information. Dillon et al as cited by (Igbo 2008) asserts that as the availability of information increases, there is a growing need for skills not only in accessing information but also in assessing critically it validity. This involves evaluation which is the determination of the merit or significance of the information or source. Evaluation is often used to characterize and appraise subjects of interest in a wide range of human enterprise, governments, education, information etc. Basically, evaluation according to Armstrong (2005) involves the ability to evaluate information for its authenticity, accuracy, currency, value and bias. It also involves the ability to evaluate the means by which the results are obtained in order to ensure that the approach used does not produce misleading or incomplete results in academic research.

Evaluation of information and its sources is an important skill needed all the time for research. According to Ormondroyd (2004) learning how to determine the relevance and authority of a given resource is one of the core skills of the research process. This position is very important for this present research which seeks to determine the influence of information literacy skills as academic staff productivity.

On the role of awareness and ability to use information resources, the American Library Association (ALA) (1989b) affirms that information literacy can only be fostered if textbooks, workbooks and lecture, can give way to a learning process based on information system and resource. Information awareness here according to CILIP (2005) involves the ability to recognize the information needed, understanding why information is needed, what information is required as well as associated constraints. These skills are necessary for research hence this present study tries to find out how it affects productivity.

Writing on e-learning in a virtual world in the Navy and its relationship to information literacy. Brynjolfsson (1996) asserts that:

Never in the history of mankind has so much information been available, easily available to so many people. Our ability to function in the Navy and Marine Corps of the future depends on our ability to acquire, process, evaluate, and use information. In other words, our Information Literacy quotient or ability will be a key to our success.

According to them, increasing information literacy skills will enable academic staff to fully exploit the technological advantages of the new millennium. The unique set of competences of the information literate include understanding the flow of information, knowing how to assess and select the appropriate resources for information, having the skill to search for and locate needed information, being able to evaluate and interpret it, extract and organize it.

He concluded that IL skills initiate, sustain and extend lifelong learning and complement the aggressive work underway throughout the Department to become a knowledge-centric organization and achieve Knowledge Superiority. There is a gap between an individual's understanding and his ability to access what he needs from the external environment. Information Literacy, providing what we could refer to as meta information (or information about information), helps close that gap and provides ways of information (or information about information), helps close that gap and provides ways of increasing an individual's ability to access what they need from the external information environment.

George et'al cited in Igbo (2008), assert that curriculum based approaches and the professional development of teaching staff in information literacy recognize the highly technical nature and increasing complexity of the Information age. The roles of teaching staff, librarians and other support staff – including those in student support and professional development – will need to be reconceptualised to ensure that the strengths and

skills of each group are coordinated to contribute to the desired productivity.

Relationship of information literacy on the teaching and learning in South Australia, they argue that the University of South Australia's approach to information literacy in the context of lifelong learning is situated within a broader teaching and learning strategy. The university has taken a particular approach in responding to the changes in the more general social and economic climate. Institution-wide planning and development processes are directed by a set of curriculum outcomes – the seven qualities of a University of South Australia graduate – and by student centred approaches which foster student access to and control of their learning processes. Flexible delivery is seen as the means to achieve these.

In recent years, the relationship between information technology and productivity has become a source of debate. According to Brynjolfsson et al. (1996), empirical research associated with information technology, generally, did not significantly improve academic productivity. They argued further that most recently, as new data are identified, and new technologies are applied, several researchers have found evidence that information technology is associated not only with improvements in productivity, but also in intermediate measures and economic supply. This survey reviews the literature, identifies questions and concludes with recommendations for application of methodologies to new data sources, as well as alternative, broader matrix of welfare to assess and enhance the benefits of information technology.

3. STATEMENT OF THE PROBLEM

The national universities commission (NUC) which regulates university education in Nigeria has set standards based on criteria for works published in Nigeria. In all, visibility and impact on the scholarly scene are very important (Aina, 2005). Bottle and Adeyinka cited in Okafor 2007 found out that Nigerian productivity was one sixth of British sample. This low productivity especially in highly rated foreign journals can be due to the fact that only abstracts in their journals are selected for Science Citation Index (SCI) or online indexing. The reason for this low level of productivity is not far from the position of O'connor and Voo cited in Okafor (2007) who argued that the factors that militate against the publication output of Nigeria academic include some variables which affect the information environment.

A major factor which affects academic productivity negatively is the problem of lack of access to resources, (Nzotta, 1997). The books, journals and ICT facilities are often not there for use. Apart from the problem of lack of access to resources, there is also the issue of distractions resulting from extracurricular pressure. There is the need to survive in an environment where water, light, fuel etc are not readily available.

The publishing industry in Nigeria is not well developed some journals disappear after two or more years of existence. Most reputable journals are foreign-based and with the quality of research here, it is difficult to get works published. Looking at the issue of low productivity from external angle, Alemna (1996) explained that it was not always easy to publish in foreign journals because much of the research in Nigeria universities addresses local issues which are not likely to interest an oversea audience.

Omolewa (2008) lamented that many of the professors in Africa are only local professors who are hardly known outside their institutions and are not recognized for the quality of their knowledge or scholarship. To be acknowledged as an international scholar, an academic must publish internationally. For this to be possible, the academic must have access to wide range of information resources, must be current and know what is going on in his field. Only an academic who is information literate can do this; hence the relevance of information literacy to academic productivity can not be over emphasized. In view of the above, this study sought to find out the extent to which information literacy correlates with academic productivity in Nigeria universities in the North central Geopolitical zone.

4. OBJECTIVE OF THE STUDY

The central objective of this study is to find out the extent to which information literacy correlates with academic productivity in the universities understudy.

4.1 Research question

One research question which will guide this study is

1. What is the relationship between information literacy's and academic productivity of academic staff?

4.2 Hypothesis

One hypothesis was tested at 0.05 level of significance in pursuance of this study?

1. There is no significant relationship between the information literacy competencies and the productivity of the academic staff.

4.3 Methodology

The design for this study is a correlation survey, that is one using a statistical techniques for establishing the extent of relationship. The population of the study comprised 2810 academic staff in the 12 universities from North central Geopolitical zone. A total of 421academic staff (15% of the population) from 6 universities were involved as sample for this study. The sample was composed through a multi-stage sampling technique using proportionate stratified random sampling. Two instruments were used in this study, first was a Standard Information

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Literacy Test and second an Academic Productivity Index. Basically, they were divided into three major parts. The first part was used for elicit democratic information from the academic staff, the second part comprised a test which elicited information on the competencies/skills of information literacy possessed by academic staff and the third which is an academic productivity index elicited information what constitutes academic productivity. The data were analysed with the use of Pearson Correlation. The choice of pearson correlation was because of its ability to establish the extent of relationship or association between two or more variables.

Table 1: Distribution of Population

LIST OF UNIVERSITIES IN NORTH CENRAL GEO-POLITICAL ZONES OF NIGERIA		
S/N	NAME	STATUS
1.	Al-Hikmah University Ilorin	Private
2.	Benue State University, Makurdi	State
3.	Bingham University, New Karu, Nassarawa	Private
4.	Federal University of Agriculture Markurdi	Federal
5.	Federal University Technology, Minna	Federal
6.	IBB University, Lapai	State
7.	Kwara State University	State
8.	Kogi State University Ayangba	State
9.	Nassarawa State University, keffi	State
10.	Salem University, Lokoja	Private
11.	University of Ilorin Ilorin	Federal
12.	University of Jos, Jos	Federal

Table 2: Distribution of Sample

UNIVERSITY	TOTAL	SAMPLE(15%)
PRIVATE		
Al-Hikman University Ilorin	220	33
Salem University, Lokoja	135	20
STATE		
Benue State University, Makurdi	325	49
Nassarawa State University, Keffi	430	64
FEDERAL		
Federal University of Technology Minna	780	117
University of Jos	920	138
	2810	421

Source: Academic planning units of various universities (2009)

4.4 Research Question One

What is relationship between information literacy competencies and academic productivity of academic staff in Nigeria universities?

Table 3: Correlation Coefficient (r) for the relationship between information literacy competencies and academic productively of academic staff in Nigeria universities

		Competency	Productivity
Competency	Pearson's Correlation	1	.692
	Sig. (2-tailed)		.168
	N	227	227
Productivity	Pearson's Correlation	.692	1
	Sig. (2-tailed)	.168	
	N	227	227

Table 3 shows the correlation coefficient (r) for relationship between information literacy competencies and academic productively of academic staff in Nigeria universities. Result revealed that the coefficient is 0.692; the relationship is positive and fairly strong.

4.5 Research Question Three

What relationship between information literacy competencies and academic productively of academic staff in Nigeria universities?

5. DATA PRESENTATION

Table 4: Correlation Coefficient (r) for the relationship between information literacy competencies and academic productively of academic staff in Nigeria universities

		Competency	Productivity
Competency	Pearson Correlation	1	.692
	Sig. (2-tailed)		.168
	N	227	227
Productivity	Pearson Correlation	.692	1
	Sig. (2-tailed)	.168	
	N	227	227

Table 4 shows the correlation coefficient (r) for relationship between information literacy competencies and academic productively of academic staff in Nigeria universities. Result revealed that the coefficient is 0.692; the relationship is positive and fairly strong.

Hypothesis 1

There is no significant relationship between the information literacy competencies and the productivity of academic staff.

Table 5: Step wise t- test for the significant of correlation coefficient

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
Productivity	.810	.048	.750	17.08	.000

Table 5 shows that the t-value for the test of significant relationship between the information literacy competencies and the productivity of academic staff is 17.028; this t-value is significant at 0.000. However, the t-value is also significant at 0.05, this is because, 0.000 is less that 0.05 $(0.000 < p < 0.05)$. Therefore, the hypothesis is not accepted; hence, there is significant relationship between the information literacy competencies and the productivity of academic staff.

6. DISCUSSION OF FINDINGS

The findings of this study on the relationship between information literacy level and academic staff productivity were presented in table 5. From the finding, it is revealed that there was a relationship between the level of information literacy possessed and the level of academic productivity. The table showed clearly that correlation coefficient ® is 0.692. This purely indicated that the relationship is positive and fairly strong. This means in effect that the more information literacy competencies possessed by the academic staff the high his academic productivity level is likely to be. This finding is relevant here because according to Omolewa (2008) to be acknowledged as an international scholar, an academic must have access to wide range of information resource, must be current and know what is going on in his field. According to him, only an academic who is information literate can do this.

Further additional support for this finding is drawn from the work of Founad (2000). Writing on the relationship between information literacy competencies and academic productivity, Founad (2000) asserted that access to sophisticate information tools without a conceptual base for use will result in the diffusion of meaningless research efforts. According to him, critical inaccessibility on the other hand deals with the users' inability to analyse and evaluate the content of the material in term of its currency. The implication of Founad's assertion is that access to information depends on the knowledge of where to locate information the ability to evaluate and analyse information for use. Explaining the above findings of the study further, Wilson (2001) argued that the tremendous increase in the need for information literacy for academic productivity was not unconnected with the exponent growth of information, resulting from digital information. According to him, the need to find, evaluate and effectively use of information has always been with us, however, with increased understanding of the learning process and internet access to unedited works, the academics in Nigeria, universities are faced with diverse and abundant information choices in their academic work. He went further to say that what they required was a complementary cluster of abilities necessary to use information effectively. This finding also corresponds with the position of Armstrong (2005) a member of Information Literacy group of Chartered Institute of Library and Information Professionals (CILIP). He asserted that understanding availability of resources required the researcher to have the ability to identity what resources are available for exploitation, where they are available, how to access them and the merit of individual resource type which will definitely increase research output.

This finding is also congruent with the view of September (1993) who states that people require some level of information skill to make decisions and cope with life daily demands. This means that effective use of information is indispensable for effective performance in life, including academic productivity.

7. CONCLUSION

This study was undertaken to find out the extent to which information literacy correlates with academic productivity among the academic staff in Nigeria Universities in the North Central Geopolitical zones. The Pearson Correlation was used in the study. Also two instruments were used to collect data. In all, result revealed that the coefficient is 0.692. it also showed that the t-value for the test of significant relationship between the information literacy competencies and the productivity of academic staff is 17.028 this T-value is significant at 0.05, this is because 0.000 is less than 0.05 (0.000<p> 0.005). Therefore, the hypothesis is not accepted hence there is a significant relationship between information literacy competencies and academic productivity of academic staff.

8. RECOMMENDATION

The study recommends that the academic staff should take advantage of the enabling environment to enhance their level of information literacy competencies which will have positive effect on their research out put.

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