

INFORMATION NEEDS AND INFORMATION SEEKING BEHAVIOUR OF PRE-SERVICE SECONDARY SCHOOL GEOGRAPHY TEACHERS IN OYO STATE, NIGERIA

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Abstract

The main focus of this study was to find out if there is evidence that pre-service secondary school geography teachers need information to support the needed skills. If such evidence existed; what were their specific information need? To what extent did these information met their skills? Five research questions were answered in this study. Using survey design, a purposive sampling strategy was used to select participants from three institutions that trained secondary schools teachers in Oyo State, Nigeria. Data were collected through triangulation of focus group discussions, individual interviews, and questionnaire. Cross-tabulations of frequencies with certain demographic information were done. Simple percentages were employed in the analysis of the participants' responses. Results showed that participants were motivated to seek information while learning, studying, entertaining and for social activities. To enhance access to information need; training on how to formulate search queries and provision of cheap wireless access points around participants' environment were recommended.

Keywords: Geography, Pre-service Secondary School Teachers, Information needs, Information seeking behavior.

Introduction

Geography helps us to understand the implication of the environment for man's ecological, social and economic purposes. It is a discipline that deals with the environment as created by God (Genesis 1:1-31). It is the researcher's view that by nature, Geography relates well with all disciplines taught in schools. It conforms to the scientific norms of natural science. Apparently, the nature of training of the teachers and the manner in which they carry out their professional careers is important in shaping the learners' future contributions to the society and career growth. The emphasis is always on the best teaching strategies to prepare teacher trainees on how to teach content effectively in Geography. These strategies should meet the goals of education and to give sanity to the discipline.

Information and Information and Communication Technologies (ICT) are used to unlock the doors of education. Information plays a significant role in our daily professional and personal lives. We are constantly challenged to take charge of the information that we need for work, fun, everyday decisions and tasks. The use or lack of information will affect the quality of preparation of pre-service geography teachers and their level of proficiency. The information sources available to pre-service geography teachers revealed their patterns of information-seeking and enable one to describe their information behaviour. Effective information service depends largely on understanding fully the users' information needs and information-seeking behaviour (Agosto & Hughes-Hassell 2005; Hepworth 2007; Wilson 2006). Prakash, Kuriakose and Nirmala (2013) saw the concept of information as something between data and knowledge which is communicated or received concerning a particular fact of circumstance in order to reduce the user's uncertainty by meeting their needs. To create information awareness and to promote the use of information, it is necessary to know the needs of the users. The present age of information explosion has resulted in an escalating growth of information needs of users which has become varied and multidimensional. More essentially, in this digital era, research on information needs and information-seeking behavior has taken on even more importance worldwide. As such, this research is directed towards finding information needs and information seeking behaviour of pre-service secondary school geography teachers in Oyo, State, Nigeria.

Succinctly put, the main focus of this study are to find out if there is evidence that pre-service secondary school geography teachers need information to support their skills. If such evidence existed; what were the pre-service teachers' specific information needed? To what extent did the information met their needed skills?

The following research questions were answered in this study.

- i. What motivates pre-service secondary school geography teachers in Oyo State, Nigeria to seek information?
- ii. For what specific reasons do pre-service secondary school geography teachers seek information?
- iii. What are the information-seeking behaviors of pre-service secondary school geography teachers?
- iv. What difficulties do pre-service secondary school geography teachers encounter?
- v. To what extent do information retrieved meet pre-service secondary school geography teachers' skills?

Clarification of key concepts

Information need: from the literature the term ‘information need’ (or need for information) has been severally defined as follows.

- A factual situation in which there exists an inseparable interconnection with ‘information’ and ‘need’. The information originates and is generated because a need or an interest exists. The content of information is of primary concern (Singh & Satija 2006).
- Information need is an individual or group's desire to locate and obtain information to satisfy a conscious or unconscious need (Wikipedia 2014).
- A state or process started when one perceives that there is a gap between the information and knowledge available to solve a problem and the actual solution of the problem.
- The best way to begin a search for information is to define ones information needs. Such information needs may include: an overview, a comprehensive search of a topic, a quick reference or fact, or an in-depth treatment.

Information Seeking Behaviour: the literature has many definitions of information-seeking behavior which include the following.

- The way people search for and utilize information or the purposive seeking for information as a consequence of a need to satisfy some goals’’ (Wilson, 2000).
- ...essentially refers to the interactive utilization of the three basic resources namely, people, information and system, to satisfy the information needs, the user actively undergoes the information seeking process. The attempt of the user in obtaining the needed information results from the recognition of some needs, perceived by the user (Singh & Satija, 2006).
- ...include all aspects of human behaviour (such as work roles and tasks) that require users to generate, communicate and seek information that is relevant to their information needs. This term also embraces information retrieval activities ((Du Preez, 2008).

Information behaviour captures the essence of this study. In this study, pre-service secondary school geography information behaviour was explained by investigating those factors that motivate their information-seeking behaviour such as their studies, training and teaching practice. The information sources they use revealed their patterns of information-seeking and enable one to describe their information behaviour. In the course of seeking, the individual may interact with manual information systems or with computer-based systems.

Skills: higher institutions of learning and training have a task of preparing pre-service secondary geography teachers with meaningful knowledge and skills. These skills are used when imparting information to the learners for sustainable growth and development. Such skills include collecting data through interviewing, observing nature, and drawing sketches. In this study, the skills so identified are research skills, reading skills, observation skills, data recording and its analysis.

Literature Review

Some of the recent empirical studies on information needs and information seeking behavior include: Callinan (2005), Du Preez, (2008), Bitso & Fourie (2012), Westwood (2012), and Huang & Kelly (2013). Bitso & Fourie (2012) investigated the information needs and information-seeking patterns of secondary level geography teachers in Lesotho and concluded

that Lesotho geography teachers need information to fulfill their work-related roles. Furthermore, Callinan (2005) comparatively analysed information-seeking behaviour of undergraduate biology students in first year and final year students in University College, Dublin. While, Du Preez (2008) investigated consulting engineers' information needs and information-seeking behavior in South Africa. Specifically, Westwood (2012) established the information resources needed by Mexican university students in foundational language to support their language learning and suggested specific resource types that could be important for these users. Huang & Kelly (2013) summarized the features of Chinese undergraduate students' daily image needs and their information behavior related to images. This shows there is still limited research literature on information needs and information behaviour studies with regard to pre-service secondary school geography teachers. Just as Bitso & Fourie (2012) reasoned 'a dearth of such studies is evident in Africa'. Therefore a gap in knowledge exists, which this study intends to fill. This work differs from previous works, which focused more on information needs and information seeking behavior of students and professional outside Africa. Thus, this study provides a benchmark of Nigeria pre-service secondary school teachers' information needs and information-seeking behavior. This study can be used for cross-professional comparisons of information-seeking behaviors.

The following factors motivated the study on information needs and information seeking behaviour of pre-service secondary school geography teachers in Nigeria. Firstly, teaching and learning are closely related with handling of information. Secondly, the mandate of Colleges of Education and other teacher training institutions that prepare teachers for employment need relevant and pertinent information. Probably, pre-service secondary schools geography teachers have limited access to information and ICT resources. It could be that little attention is given to in-service geography teachers' compared to pre-service teachers of other perceived compulsory subjects such as English, Mathematics and Sciences.

The conceptual framework of the study is as presented.

Figure 1: Pre-Secondary school geography teachers' information-seeking behaviour.

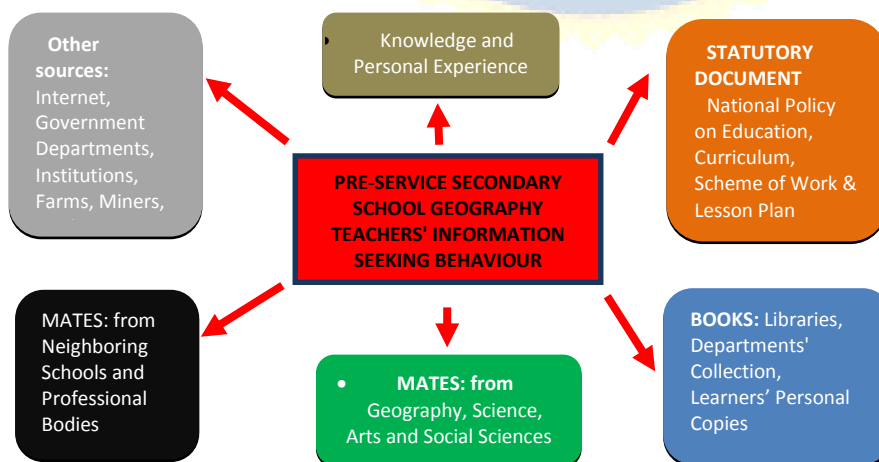


Figure 1 depicts information-seeking behavior of pre-service secondary school geography teachers in Oyo State, Nigeria. Complexity of the information needs determines where the search can begin. The framework reflects commitment to information-seeking among the teachers who participated in the survey to pursue various sources on different levels to find information.

Source: Oladapo, O. S. (2015). Information needs and information-seeking behaviour of pre-secondary school geography teachers in Oyo State, Nigeria.

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- **Methodology**

A purposive sampling strategy was used to select pre-service secondary school geography teachers from three tertiary institutions that trained secondary schools' teachers in Oyo State, Nigeria. The institutions are as follows.

- Faculty of Education, University of Ibadan, (UI) Ibadan.
- Emmanuel Alayande College of Education, (EACOED) Oyo, Erelu Campus.
- Emmanuel Alayande College of Education, (EACOED) Oyo, Lanlate Campus, Lanlate.

Data were collected from pre-service secondary geography teachers through triangulation of focus group discussions, individual interviews, and questionnaire. To ensure contents, construct and face validity, the instruments were presented to two experts. Modifications were made based on their assessments. This was done to determine the proper structuring, adequacy and contents validity of each of the items and to ensure that the instrument measured what they were expected to measure. All the items in the entire instruments were retained after modifications based on the experts' suggestions. From the participants, information solicited relates to their information needs and information-seeking behavior in their studies and teaching practice. The data were collected through the use of survey research. Cross-tabulations of frequencies with certain demographic information and simple percentages were used to analyse the data.

Data Analyses

Demographic Characteristics of pre service secondary school geography teachers

A total of 248 pre-service secondary school geography teachers participated in this study. Out of which 26 (10.4%) are studying at the University of Ibadan (UI). At UI students combine Geography with either Educational Management, Guidance & Counselling or Special Education. While 173 (69.8%) and 49 (19.8%) participants were drawn from both Erelu and Lanlate Campuses of EACOED, Oyo respectively. At EACOED, participating secondary school geography teacher trainees combine Geography with any one of the following subjects: Biology, Computer Science, Economics, Integrated Science, Mathematics, Political Science, Social Studies and Physics.

Motivation to seek information by pre-service secondary school geography teachers based on subject combinations

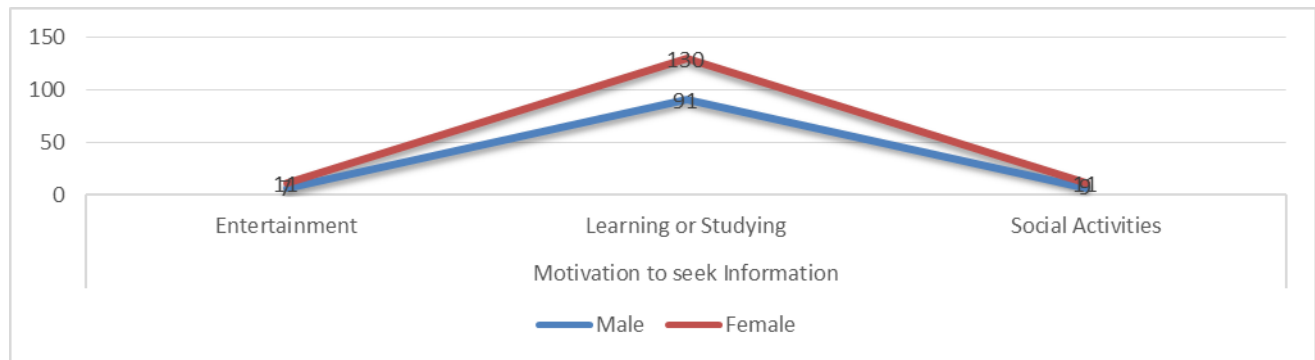


Figure 2: Motivation to seek information on gender basis

Source: Author's Analysis, 2015.

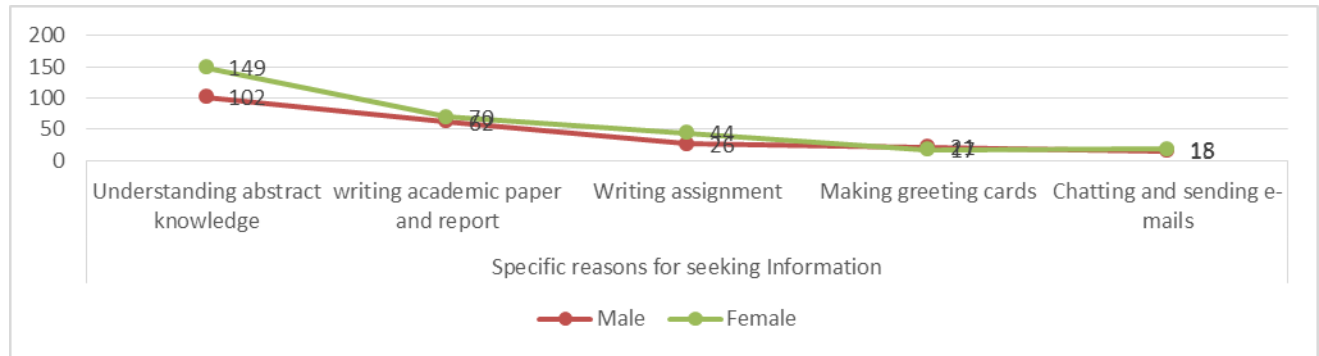
Table 1: Motivation to seek information on subject combination basis

Subject combined with Geography	Motivation to seek information		
	Entertainment	Learning or Studying	Social Activities
Guidance and Counselling		11	2
Educational Management	3	11	3
Biology	4	38	4
Economics	6	134	11
Integrated Science		9	1
Mathematics		10	1
Social Studies		1	
Political Science	1	1	
Computer Science		2	
Physics		4	
Total	15(5.8%)	221(85.7%)	22(8.5%)

Source: Author's Analysis, 2015.

Specific reasons for seeking information by pre-service secondary school geography on gender and subject combination

Figure 3: specific reasons for seeking Information by gender

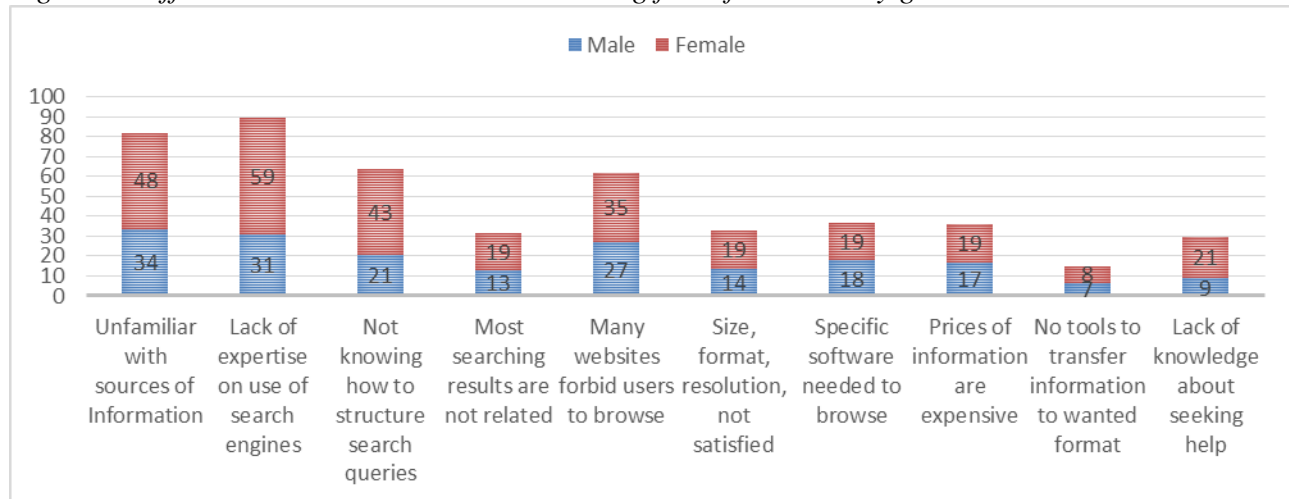


Source: Author's Analysis, 2015.

Table 2: specific reasons for seeking information by subject combination basis

Subject combined with Geography	Understanding abstract knowledge	writing academic paper and report	Writing assignment	Making greeting cards	Chatting and sending e-mails	Writing report for social activities/club
Guidance and Counselling	6	1	4	1	2	
Educational management	6	7	3	6	2	4
Biology	30	27	24	8	11	5
Economics	113	58	32	17	14	9
Integrated Science	8	8	3	5	3	3
Mathematics	10	2	3	1	1	1
Social Studies	1	1				
Political Science	2					
Computer Science	1			1		1
Physics	4		1			
Total	181(39.6%)	111(24.3%)	70(15.3%)	39(8.5%)	33(7.2%)	23(5.1%)

Source: Author's Analysis, 2015.

Difficulties encountered when searching for information**Figure 4: difficulties encountered when searching for information by gender**

Source: Author's Analysis, 2015.

Table 3: difficulties encountered when searching for information on subject combination basis

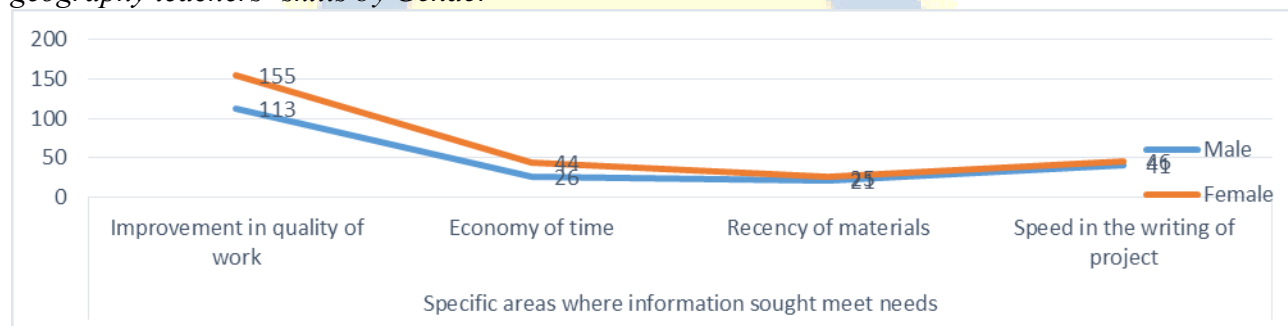
Subject combined with Geography	Unfamiliar with sources of Information	Lack of expertise on use of search engines	Not knowing how to structure search queries	Most searching results are not related	Many websites forbid users to browse	Size, format, resolution, not satisfied	Specific software needed to browse	Information are expensive	No tools to transfer information to wanted format	Lack of knowledge about seeking help
Guidance and Counseling	4	3	5	2	5	1	4	2	1	2
Educational management	5	2	10	9	5	1	4	3	3	8
Biology	24	6	23	16	12	6	11	10	7	16
Economics	68	40	19	2	33	20	15	12	1	2
Integrated	5	2	2	1	3	3	1	4	2	1

Science										
Mathematics	4	4	2	1	2	2	2	3	1	1
Social Studies	1	1		1	2					
Political Science		1								
Physics	3		2					2		
Total	114(23.7%)	59(12.2%)	64(13.3%)	32(6.6%)	62(12.9%)	33(6.8%)	37(7.7%)	36(7.5%)	15(3.1%)	30(6.2%)

Source: Author's Analysis, 2015.

Specific areas information retrieved met needs of the pre-service secondary school geography teachers' skills

Figure 5: Specific areas information retrieved met needs of the pre-service secondary school geography teachers' skills by Gender



Source: Author's Analysis, 2015.

Subject combined with Geography

Table 4: specific areas where information retrieved met pre-service secondary school geography teachers' skills by subject combination

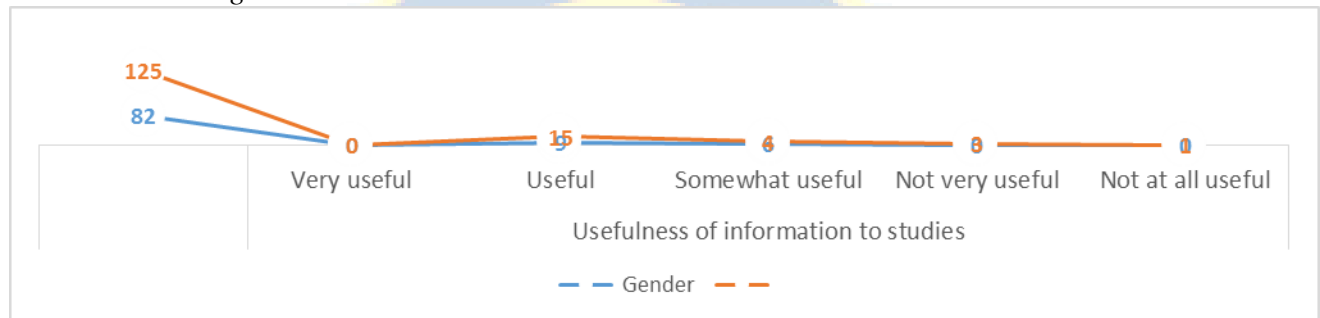
Subject combined with Geography	Improvement in quality of work	Economy of time	Recency of materials	Speed in the writing of project
Guidance and Counselling	14	1	0	3
Educational Management	16	5	0	6
Biology	60	13	0	19
Economics	144	45	1	43

Integrated Science	17	4	0	7
Mathematics	1	1	0	5
Social Studies	1		0	1
Political Science			1	
Computer Science	3	1		
Physics	5			3
Total	269(62.9%)	70(16.4%)	02(0.4%)	87(20.3%)

Source: Author's Analysis, 2015.

Extent to which information retrieved is useful in meeting the pre-service secondary school geography teachers' skills

Figure 6: usefulness of information retrieved in meeting the pre-service secondary school geography teachers' skills on gender basis



Source: Author's Analysis, 2015.

Table 5: usefulness of information retrieved in meeting the pre-service secondary school geography teachers' skills on subject combination basis

Subject Combined with Geography	Very useful	Useful	Somewhat useful	Not very useful	Not at all useful
Guidance and Counselling	9	4	1	0	0
Educational Management	10	1	1	0	0
Biology	35	3	2	0	0
Economics	128	14	4	3	1
Integrated Science	8	0	1	0	0

Mathematics	9	0	1	0	0
Social Studies	0	1	0	0	0
Political Science	2	0	0	0	0
Computer Science	2	0	0	0	0
Physics	4	1	0	0	0
Total	207(84.5%)	24(9.8%)	10(4.1)	3(1.2%)	1(0.4%)

Source: Author's Analysis, 2015.

Discussion of findings

Across subject combinations, pre-service secondary school geography teachers in Nigeria appear to be motivated to use information resources. A total of 221(85.7%) respondents were motivated to use information resources while learning and studying. Another 15(5.8%) were motivated by entertainment needs and only 22(8.5%) were motivated by social activities. While understanding abstract knowledge is the most significant reason why participants seek information as responded by 181(39.5%). In order of magnitude, other specific reasons for seeking information by pre-service secondary school geography teachers on gender and subject combination are: writing academic paper and report 111(24.3%), writing assignment making 70(16.3%), greeting cards 39(8.5%), chatting and sending e-mails 33(7.2%) and writing report for social activities/club 23(5.1%).

The greatest difficult encountered by female pre-service secondary school geography teachers while searching for information is lack of expertise on use of search engines. The study also revealed that the ladies are unfamiliar with sources of information, some do not know how to structure search queries, while many websites forbid users to browse. While the greatest difficult encountered by female pre-service secondary school geography teachers while searching for information is unfamiliarity with sources of information, some were lack the expertise on use of search engines, many websites forbid users to browse.

On subject combination basis, the difficulties encountered by the participants when searching for information in order of magnitude are as follows. Unfamiliarity with sources of information 114(23.7%), not knowing how to structure search queries 64(13.3%), many websites forbid users to browse 62(12.9%) and lack of expertise on use of search engines 59(12.9%). Others are specific software needed to browse 37(7.7%); information are expensive 36(7.5%); size, format, resolution, not satisfied 33(6.8%); most searching results are not related 32(6.6%); lack of knowledge about seeking help 30(6.2%) and no tools to transfer information to wanted format 15(3.1%).

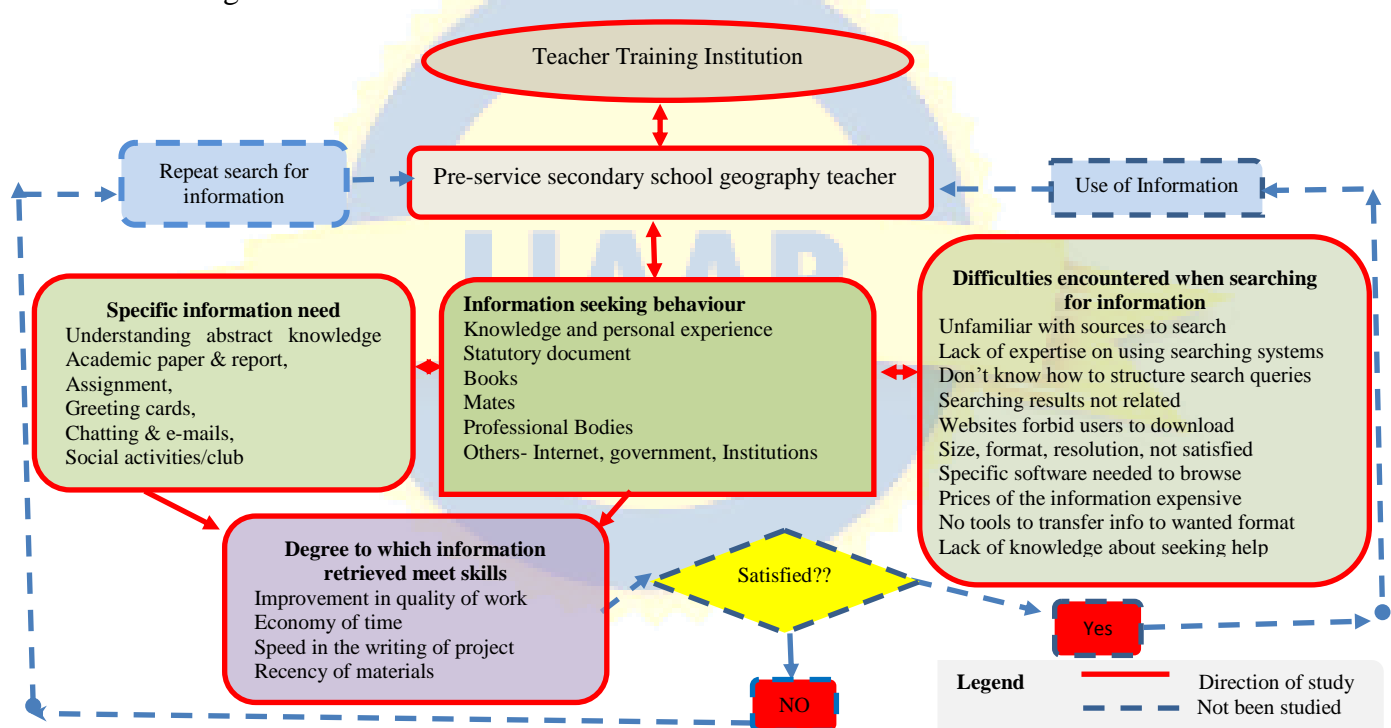
These findings are in line with Ilo and Ifijeh (2010) that users with the required skills for searching are able to navigate through the internet and explore relevant information without necessarily investing on time. The authors added, every researcher desires to know current trends in their areas of research. The internet performs a big role in this regard. Just as Ikpaahindi

(2006) reasoned “the quest of the academia to explore different fields of study through research is satisfied by the vast sea of resources found in the Internet”.

The proposed model

The proposed model depicts information needs and information-seeking behavior of pre-service secondary school teachers in Nigeria. Complexity of the information need determine the participants’ information seeking behaviour. This is as clearly shown in figure 1. If the participants are able to surmount most challenges encountered during search, they will be satisfied about the information retrieved. As such, they will find the information usable. If not satisfied they can discard the retrieved information and initiate a new process of searching for information. The distinction between the two concepts is that information need established the awareness, and assisted in locating appropriate information sources. Information behavior describes the pattern of seeking the actual information. The model lays down the information need and behaviour of pre-service secondary school geography teacher in Nigeria.

Figure 7: Information needs and information-seeking behavior of pre-service secondary school teachers in Nigeria



Source: Oladapo, O. S. (2015). Information needs and information-seeking behaviour of Pre-Secondary school geography teachers in Oyo State, Nigeria.

Recommendations

It is suggested that all pre-service secondary school geography teachers in Nigeria should own smartphones and lap-top computers. If cybercafés are provided with wireless access points around their environs, it will become possible for them to browse within the environments. This will enhance access to information needed. It behooves on pre-service secondary school geography teachers in Nigeria to be trained on the ability to formulate search queries. This will

enable them to easily navigate the internet. This training will also permit for the control of quality and quantity of resources scattered over the internet. While preparing teachers for employment there is need for relevant and pertinent information. As such, it is appropriate to understand the information need and information seeking pattern of pre-service secondary school teachers in Nigeria with regards to their teaching skills. This understanding will guide the design and implementation of information service delivery for these would be teachers, since teaching and learning are closely related with handling of information.

Conclusion

This study provides some evidences for research in information needs and information pattern of pre-service secondary school geography teachers in Nigeria. Evidences provided suggested that these students indeed need information resources to support their information need. It is hoped that further investigations in this area will continue to contribute to both scholarly literatures and practices of geography teachers.

References

- Agosto, D.E. & Hughes-Hasell, D. (2005). People, places, and questions: an investigation of the everyday life information-seeking behaviours of urban young adults. *Library and Information Science Research*, **27**(2), 141-163.
- Bitso, C. and Fourie, I. (2012). "An investigation of information-seeking behaviour of geography teachers for an information service intervention: the case of Lesotho." *Information Research* 17(4) paper 549. Retrieved 27 July, 2014 S<http://informationr.net/ir/17-4/paper549.html>]
- Callinan, J. E. (2005). "Information-seeking behaviour of undergraduate biology students: A comparative analysis of first year and final year students in University College Dublin", *Library Review*, 54(2): 86 – 99.
- Du Preez, M. (2008). Information needs and information-seeking behaviour of consulting engineers: a qualitative investigation. Unpublished master's thesis, University of South Africa, Pretoria, South Africa. Retrieved 24 November, 2012 from <http://uir.unisa.ac.za/bitstream/handle/10500/1941/dissertation.pdf?sequence=1>
- Hepworth, M. (2007). Knowledge of information behaviour and its relevance to the design of people-centred information products and services. *Journal of Documentation*, 63(1), 33-56.
- Huang, K. and Kelly, D. (2013). The Daily Image Information Needs and Seeking Behavior of Chinese Undergraduate Students. *College & Research Libraries* Retrieved 27 July, 2014 (<http://creativecommons.org/licenses/by-nc/3.0/>) CC BY-NC
- Ilo, P. I. and Ifijeh, G. I. (2010). "Impact of the Internet on Final Year Students' Research: A Case Study of Covenant University, Ota, Nigeria" (2010). *Library Philosophy and Practice (e-journal)*. Paper 403. Retrieved 27 July, 2014 <http://digitalcommons.unl.edu/libphilprac/403>

Ikpaahindi, L. N. (2006). Resource sharing in cataloguing, bibliographic, and indexing services in an information and communication technology (ICT) age.

Prakash, S. J., Kuriakose, K. R. and, Nirmala, P. J. (2013). Information Seeking Behaviour and Use Pattern of Faculty Members of V.L.B Group of Institutions: A Study *International Journal of Information Dissemination and Technology* 3(1).

• Rafiq, M. and Ameen, K. (2009). Information Seeking Behavior and User Satisfaction of University Instructors: A Case Study. *Library Philosophy and Practice*.

Singh, K. P. & Satija, M. P. (2006). A Review of Research on Information Seeking Behaviour of Agricultural Scientists: *International Perspectives DESIDOC Bulletin of Information Technology* 26(2): 25-36

The Holy Bible. Genesis 1: 1-31 King James Version.

Westwood, G. (2012). Investigating the information needs of university students in foundational foreign language courses. *Studies in Self-Access Learning Journal*, 3(2): 149-162.

Wikipedia (2014). Defining information needs downloaded 28 July, 2014
http://en.wikipedia.org/wiki/Information_needs

Wilson, T. D. (2006). Rethinking information behaviour research: an activity theory approach. In: *Information Use in Information Society*. Proceedings of International Conference. Bratislava, October 10-11. Bratislava: Centrum vedecko-technických informácií. 2006.