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### INFLUENCE OF INFORMATION LITERACY ON THE USE OF OFFLINE DATABASE AMONG THE UNDERGRADUATE'S STUDENTS OF GOMBE STATE UNIVERSITY

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**ABSTRACT:** The research investigated on the influence of information literacy on the use of offline database among the Undergraduate's students of Gombe State University. Five research objectives were formulated in the research and the literature was review according to the research questions. Mixed methods were used in the conduct of the study. A total of 363 were selected from the entire population. Two instruments were used in collecting the data which were interviewed and questionnaire and the data collected was analyzed and interpreted using a simple statistical method. The major research findings revealed that most of the students were unaware of the existence of offline database available in the University library. It also revealed that the library offers only one program on information literacy skills which were carried out once a year. It also revealed that most of the respondents do not have proper orientation programs such as seminars, training, and conferences etc. not done regularly for the students which will improve the influence information literacy and utilization of offline database available in the University library. Based on the recommendations observed by the researcher revealed that the awareness of offline databases should be made available via all necessary means in the library so that the undergraduate students will satisfy their information needs and demands. The researcher also recommends the adequate orientation programme should be adopted and conducted regularly to enable the students to be literate enough on searching for the information in need from the offline database available in the University library. The university library should be able to provide sufficient and adequate power supply. ICT's infrastructures mad facilities together with more qualified that have the knowledge and skills in discharging their duties diligently and efficiently.

KEY WORD: information literacy: information literacy skills, database, and offline database.

### **INTRODUCTION**

Information is generated from data and data are the facts, outcomes, results that does not have a meaning. Information can be described as data or knowledge which is shared and or disseminated concerning a particular circumstances or facts to reduce the user's uncertainty to meet his/her need. Information is an idea, opinion, perception or processed data that has the capability to change or modify the individual's attitudes. The present era is called the information era. Information has becomes the most vital or important element for the progress of the society. To thrive in the modern era, one need a variety of information no matter how well versatile he/she is, on his/her profession. Psacharopoulous, (1982), described the necessity of information and also the literacy skill for searching the information at the present age. We can accept or recognize the education system and redefined the scientific research only with the help of information. Aguolu, (2002), sees

ECRTD-UK: https://www.eajournals.org/ ULR: https://doi.org/10.37745/ejmer.2014 information as a knowledge or message which is communicated between the individuals (i.e. between encoder to the decoder) for an appropriate decision making. Information is an ingredient for making decision that needs to be secured for long period of time in order to make it available for the next coming generation. Information is made to be used by a particular group in a particular period of time for a particular purpose. Information may be available on paper or in digital format; it can be through other media such as broadcast or film, or from colleague or friend. Information may or may not be conveniently close at hand and easily be accessible and quantifying your need and making decision about the use of information source may tempered by ease and speed with which an answer can be obtained.

Moreover, the present era is called the era of information because it is highly regarded as an important weapon or element for the development of the society. To thrive in this modern era, one needs a variety of information no matter how versed the individual is in his or her profession.

Traditionally, the concept of literacy simply means the ability to read and write. According to American library association (2000, p.1): Information literacy is the set of skills or experiences or knowledge needed by an individual or individuals to know and recognize when the information is needed and have ability to find, locate, retrieve, analyze, carefully evaluate and use effectively the needed information. Therefore, information literacy is the ability of individual's to have the skills or knowledge for searching, identifying, locating and effectively use relevant information that will satisfy their need. Such skills include technical literacy skills, computer literacy skills, web literacy, library literacy etc.

A database is an organized collection of information from different professions or trade publications mostly containing scholarly academic journal articles on various institutions such as academic institutions, business, finances, governments and management. A database is the collection of information which usually required machine readable format to access the information it contained. Generally, they are made available for use by online or offline search services. Such databases include CD-ROM, e-granary, Encarta, encyclopedia Americana and Britannica, Ebscohost, CDS or ISIS etc. All these data bases require a search devices such as computers and other software that facilitate retrospective search of one or more databases in order to identify, search and locate relevant information contained. There are different types of databases such as textual databases, numerical, bibliographic and non-bibliographic etc. Databases are now becoming the main sources of getting the information either offline (i.e. without the connectivity in to the internet) or online (i.e. which can be access with the internet connection). (Lawal, 2015).

However, Oxford advanced learner's English Dictionary 8<sup>th</sup> edition defines databases as the collection or an organize set of data that is stored in repository or any electronic storage devices such as computer, CD-ROM etc. and can be looked at and used in various ways. The awareness and utilization of databases is one of the most important aspects of library services in the modern era.

The offline databases are those databases that allow the users to access the information it contained without connectivity in to the internet. These databases contribute immensely to the provision of current and accurate information. With the advent of online catalogues, online databases, other

electronic resources (CD-ROM), and above all the introduction of offline databases such as encyclopedia Britannica, E-granary, Encarta premium, for areas with poor or no internet connectivity, access to information and new methods of document delivery, the role of the academic library is changing. Users do not have to be physically present in the library and the library does not necessarily need internet connectivity in order to access the library resources. The changing role of academic librarians as knowledge managers emphasizes on the need to constantly acquire new skills and knowledge to remain relevant in today's library environment. Dadzie (2005) have asserted that for any accessible information to be of optimal use, it must have the following qualities: relevance, accuracy, timeliness, currency, completeness and cost effectiveness. In their view, these are the qualities that any information seekers would be looking for. Lucey (2005) on his part has stated that the relevant information increases knowledge, reduces uncertainty and is usable for the intended purpose. Academic libraries may need to restructure their functions, expand their roles and duties to effectively contribute and meet the needs of large and diverse academic communities.

According to Oxford advanced learner's dictionary, 8<sup>th</sup> edition the concept of awareness is the knowing of something; knowing that something exists and it's important. It is important that the library improves the level of awareness about their electronic information resources to their users in order to ensure the maximum usage of those resources. Moreover, Awareness is knowing what is going on, an understanding of the activities. It can also be described as specific coordination and knowledge sharing among library users. Studies have been conducted to ascertain the user awareness of electronic resources in university libraries. Nisha and Ali (2013), Chirra and Madhusudhan (2009) and Atakan et al. (2010), postulated that the users are only used to the available databases in the library when they are aware. This means that awareness to users is what makes them to use the databases whether online or offline.

The student should be able to possess the information literacy skills coupled with information seeking and technology skills. The students are expected to be information literate, if not must. The process of acquiring literacy must be taken in to consideration by both the universities and students. In order to ensure this, the university must develop and maintain sturdy information literacy infrastructures. Information literate student should first of all define when they have an information need, they should know the suitable location where to look for information and the techniques or procedures to utilize the information and also have the ability to identify the needed information and to determine or ascertain whether if it is the best, most accurate and up-to-date information available (Engeldinger, 2009).

Moreover, Hadimani and Rajgoli (2010), elucidate that, information literacy comprises a various elements of library literacy, computer literacy, media literacy, network literacy and other illiteracies. It should be noted that, in the best education experiences, students become literate in their field and research methodologies to their various field of studies. Information is now becoming an important input and students need to be learnt, reviewed and developed for productive information use from pre-school through post-school education up to the university level. In today's world of information where the limitation or coverage area of information has become limitless, there is a need for students to become critical users of information. It is not only for the

students to know how to identify, recognize or locate information resources but also developing skills for searching and seeking information from variety of formats or containers of information resources such as databases, internet resources etc. it should be noted that, what information that student got may not be crucial or vital until when that information is effectively used to complete the information gap. In a nutshell, information literacy among students is necessary because it enable them to have the ability to identify when they need information, the ability to recognize, locate and critically assess and effectively use it to complete a specific task.

### **Research Objectives**

The study investigated the following specific objectives

- To find out the types of Offline databases available in GSU library.
- To find out the information literacy programmed organized and carried out by Gombe State University Library.
- To find out the Influence of Information Literacy on the Use of Offline databases by Students of Gombe State University library.
- To determine the level of Utilization of Offline databases by the students of Gombe State University library
- To find out the Challenges and ways to solve the Challenges associated With the Use of the available databases in GSU Library

# Scope and Limitation of the Study

The study will be restricted to the influence of information literacy on the use of offline databases among the undergraduate students in Gombe State University. The present study targeted Gombe State University Library to find out how the use of offline databases improves information literacy and utilization of information resources. This was mainly due to lack of financial resources (funds), material resources and time constraints within which the research is to be done.

# **REVIEW OF LITERATURES**

Here is the review of various related literature. It comprises the conceptual frame work by different scholars and researchers like Tiwana (2000), Wenzel and Okiki (2011), Popoola (2008), Lyold (2010, p.1), UNESCO (2003), Lau Jesus (2006), Hope worth (2000), Aguolu (2002), Oyewusi (2009), Lyanda and Salawi (2006) etc. The review discussed the different type of offline databases and type of information literacy programs available, where scholars and researchers like Abdul 'Aziz (2008) sees information literacy as the ability of users to know and aware of their information need and have the ability to effectively access and utilize the right information to fill their information gap. And offline databases are those databases that a user's can get access with little or no internet connection. Johnson (2002) believes that computer literacy is one of the important skills for accessing, retrieving and using the resources contained in offline databases.

The study also reviewed literatures on information literacy among the undergraduate students where Adeyeme (2005) emphasized that, there is a need for undergraduate students to know how to use library and some electronic databases, if they want to pursue their academic successful, this is because of significant relationship between Knowledge and use of databases. The study also reviewed different types of offline databases used in the university which include CD-ROM, DVD, eGranary, Encarta kids, dictionary and premium etc.

Utilization of databases were also reviewed, Nisha and Ali (2013), Chirra and Madhuudhan (2009), Okelle-Obure (2010), Ercegovac (2009). The review also examines the views of Wu and Chen (2012), Talja and Maula (2002) stated that the usage of databases varied based on the attitude and subject background. Moreover, Sinh and Nhung (2012), Dudley, Anarki and Bavulhaveji (2012 and 2013) respectively recommended the possible ways that facilitate the usage of databases by undergraduate students.

Finally, the study also reviewed the problems associated with the Influence of information literacy on the use of offline databases by undergraduate students of (GSU) from different point of views like Ishola and Obadare (2014), James (2010), where they mentioned negative attitude of users, lack of information literacy and inadequate ICT facilities are the major challenges of using electronic databases, while Dule and Iwehabura (2004) viewed that lack of awareness and information literacy skills as one of the major causes of underutilization of electronic resources in Africa libraries. However, Salaam and Aderibigbe (2010), Oduwole and Sowole (2006), identified that electricity, poor network connectivity and ICT skills are the major problems of accessing and utilizing the electronic databases.

### METHODOLOGY

The procedure that was adopted in carrying out this study includes:

**Research Design** 

Population of the Study

Sample and Sampling Technique

Instrument for Data Collection

Method of Data Collection

Method of Data Analysis

### **Research Design**

The researcher adopts survey research design using mixed method (i.e. combination of both qualitative and quantitative methods). Bryman (2001), mixed method of research is a way of adopting more than one method while conducting a particular research.

Hassa-Biber (2010) as cited by Fari (2014) elucidates that, a qualitative method of research gives a clear witnesses or evidences as a sources of experiences gained (knowledge) while quantitative method touches the practical participation of individuals or groups.

### **Population of the Study**

The choices of population in a research is based on the choosing a specific unit of analysis in which a researcher intends to draw his/her conclusion. Population is the group of individuals, objects, or subjects possessing a common characteristic(s) that is the target of the study or investigation. Aina (2004) defined population as a group of (individuals, objects or subjects) under which the researcher wants to draw his/her conclusion. According to Oxford advanced Learner's dictionary, 8<sup>th</sup> edition population is a group of people, objects or animals living in a particular place or area.

The target population of the study consisted of 9,638 undergraduate student of Gombe state university.

### Sample Size and Sampling Techniques

Sampling techniques involve the method of selecting an unbiased representative from the population Aina, (2004). While sample refers to the subset of a population representing the entire population. Creijcy and Morgan (1970) theory of determining sample size, population of size (N) will be represented by the sample size (S) because we are dealing with a large population therefore, using Creijcy and Morgan table the sample size of the study is 363 will be selected and use as the sample of the study. See appendix III

### **Instrument for Data Collection**

The basic instruments that will be use for the collection of data in this research are questionnaire and interviews. Questionnaire is a formalized schedule for collecting data from respondents. In designing the questionnaire, the structured pattern will be adopted. Conscious efforts will be made to eliminate any ambiguous question. The questionnaire will be given to Undergraduate Students and Staffs of Gombe State University. Questionnaires are utilized to gather facts about the phenomenon under investigation by posing questions to the participant whose answers determine their beliefs, attitudes, opinions, feelings, knowledge or intentions as they relate to the phenomenon (Burns & Grove, 2001). Questionnaire data can be considered valid and reliable because it is presented in a consistent manner, so there is less opportunity for bias than many other data collection tools, a large and diverse participant sample can be obtained, although poorly constructed questions may be biased or leading there is no interviewer bias, the responses are more likely to be candid and it is possible that responses and information will be expressed that may not be if a third person was included in the data collection process (Burns & Grove, 2002; Roberts & Taylor, 1998). An interview is a conversation with, or questioning of a person that has structure and purpose, used in order to obtain information relevant to a specific topic (Collins Concise Dictionary, 2005). An interview involves communication between the researcher and the participant, during which information is provided to the researcher, allowing them access into another person's world (Latimer, 2003; Burns & Grove, 2001).

### Method of Data Collection

Bureau, (2010) data collection refers to the devices or tools used to collect data, such as a paper questionnaire or computer assisted interviewing system.

Being that the researcher is using mixed method of research, questionnaire and personal interview are to be used as instruments for collecting data from different respondents. The interview will be for library staff and questionnaire for students. The interview and questionnaire will consist of two sections, section A and B.

According to Mellenbergh, (2008) a questionnaire is a research instrument consisting of a series of question and other prompts for the purpose of collecting information from respondent. Although they are often designed for statistical analysis of the responses, this is not always the case. In another perspective, Questionnaire is an instrument for data collections, consisting of range of questions and other prompts for the purpose of collecting or gathering or data from respondents. It allows the researcher to collect most complete and accurate data in logical issues (Mays& Pop, 2000). Furthermore, personal interview as defined by Krishnaswami and Ranganathan (2009) is an oral or face-to-face conversation. The data are collected by listening to individuals, recording, filming their responses or combination of both. They added that an interview comprises a lot of preparation like.

## Method of Data Analysis

The Data collected will be analyze using simple statistical percentage method, each question on the questionnaire will be treated on a frequency table and the results of response to that question will be presented in the table, followed by table interpretation. This procedure will be used upon other questions.

Simple percentage would be used to represent the data tables are drawn to illustrate certain responses together with the relevant explanations. For example:

X Stands for number of questions that answer Yes or No

Y Will stands for total number of questionnaire distributed.

Daura (2002) had similar view in his report which supports this assertion by saying that a data analysis is the processing of data or body of any information of any physical and human environment in order to extract useful processed data (information), knowledge and reveal important pattern.

### **Data Presentation and Analysis**

The result of the various data collected from the interview and questionnaire, answered and completed on influence of information literacy on the use of offline databases among undergraduate student in GSU. The data are presented in a tabular form using simple percentage for comparative analysis

### **Response Rate**

Out of the 363 respondents that were administered with questionnaires, 330 (96.7%) respondents duly completed and returned the questionnaires. The cooperation received from library staff during interview also helped. The table will be shown below:

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# **Table 1: Response Rate**

	Frequency	Percentage
Total number of questionnaires distributed	363	
Total number of questionnaires returned	330	96.7%
Total number of questionnaires not returned	33	3.3%
Total		100%

# **Table 2: Gender of the Respondents**

Gender	Response rate	Percentage
Male	175	53%
Female	155	47%
Total	330	100%

From the above table, the result shows that majority of the respondents are male having with 53% representing 175 respondents and female with 47% representing 155 respondents respectively.

### How frequently do you attend the Library?

# Table 3: Visit to the Library by the Students

s/no	Variables	Frequency	percentage
1	Every day	200	60.6%
2	Once in a week	50	15.2%
3	Twice in a week	50	15.2%
4	Once in a Month	30	9.0%
	Total	330	100%

From the above table, the result shows that 60.6% representing 200 respondents are attending the Library every day, while 15.2% representing 50 respondents are attending Library once in a week, also 15.2% representing 50 respondents are attending Library twice in a week, 30 (9.0%) said they are attending Library once in a month.

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# What is the level of your literacy while searching information from electronic databases? Table 4: Level of Students Literacy

S/No	Variables	Frequency	Percentage	
1	Expert	150	45.5%	
2	Above average	100	30.3%	
3	Below average	50	15.2%	
4	Average	30	9.0%	
	TOTAL	330	100%	

From the above table, the result shows that 45.5% representing 150 respondents are expert while searching information from electronic databases, while 30.3% representing 100 respondents are above average while searching electronic databases, also 15.2% representing 50 respondents are below average while searching electronic databases, and also 9.0% representing 30 respondents are average while searching information from electronic databases.

# How do you evaluate or assess the Library in terms of effectiveness?

Table 5: Students Evaluation of the Library in Terms of Effectiveness

s/no	Variables	Frequency	percentage
1	Effective	180	54.5%
2	Very effective	100	30.3%
3	Not effective	40	12.1%
4	Undecided	10	3.0%
	Total	330	100%

From the above table, the result shows that 54.5% representing 180 respondents are effective in terms of evaluating Library effectiveness, while 30.3% representing 100 respondents are very effective in terms of assessing the Library effectiveness, also 12.1% representing 40 respondents are not effective in terms of evaluating Library effectiveness, also 3.0% representing 10 respondents are undecided in terms of assessing Library effectiveness.

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### Is there any Influence of Information Literacy on the Use of offline Database?

# Table 6: Influence of Information Literacy on the Use of Offline Database

s/no	Variables	Frequency	Percentage
1	Yes	200	60.6%
2	No	130	39.4%
	Total	330	100%

From the above table, the result shows that 60.6% representing 200 respondents said there is influence of information literacy on the use of offline databases, while 39.4% representing 130 respondents said there is no influence of information literacy on the use of offline databases.

### Do you use offline databases?

# **Table 7: Utilization of Offline Database**

s/no	Variables	Frequency	Percentage
1	Yes	100	30.3%
2	No	230	69.7%
	Total	330	100%

From the above table, the result shows that 30.3% representing 100 respondents are using offline databases, while 60.9% representing 230 respondents are not using offline databases.

### How often do you use the Offline Databases?

**Table 8: Frequently Utilization of Offline Database** 

s/no	Variables	Frequency	Percentage
1	Daily	50	15.2%
2	Semi weekly	50	15.2%
3	Weekly	100	30.3%
4	Not at all	130	39.3%
	Total	330	100%

From the above table, the result shows that 15.2% representing 50 respondents are using offline databases daily, also 15.2% representing 50 respondent are using offline databases semiweekly, while 30.3% representing 100 respondents are using offline databases weekly, also 39.3% representing 130 respondents are not using offline databases at all.

## What is the level of satisfaction derived after its usage?

# Table 9: Level of Satisfaction Derived from Using Offline Database

s/no	Variables	Frequency	Percentage
1	Highly	120	36.4%
2	Satisfied	100	30.3%
3	Not satisfied	80	24.2%
4	Highly not satisfied	30	9.1%
	Total	330	100%

From the above table, the result shows that 36.4% representing 120 respondents are highly satisfied in using offline databases, while 30.3% representing 100 respondents are satisfied in using offline databases, also 24.2% representing 80 respondents are not satisfied in using offline databases, while 9.1% representing 30 respondents are highly not satisfied in using offline databases.

### What problems do you encountered while using offline databases?

# Table 10: Problems Encountered while Using Offline Database

s/no	Variables	Frequency	Percentage
1	I don't know how to use them	100	30.3%
2	Lack of awareness and adequate orientation program	70	21.2%
3	Lack of available databases	30	9.1%
4	Insufficient power supply	50	15.2%
5	Inadequate ICTs for accessing and utilizing information	80	24.2
	Total	330	100%

From the above table, the result shows that 30.3% representing 100 respondents they don't know how to use offline databases, while 21.2% representing 70 respondents they don't aware and don't have adequate orientation program, also 9.1% representing 30 respondents they lack available databases, while 15.2% representing 50 respondents they have the problem of insufficient power supply, also 24.2 % representing 80 respondents have problem of inadequate ICTs for accessing and utilizing information.

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### How do you think the problems can be solved?

S/no	Variables	Frequency	Percentage
1	Making databases available	100	30.3%
2	Adequate power supply	70	21.2%
3	Provision of information literacy skills	50	15.2%
4	Provision of ICTs facilities for accessing and utilizing information	70	21.2
5	Proper orientation	40	12.1
	Total	330	100%

From the above table, the result shows that 30.3% representing 100 respondents said that making databases available can solved the problems while 21.2% representing 70 respondents said that adequate power supply can solve the problems, also 15.2% representing 50 respondents said that provision of information literacy skills can solve the problem, also 21.2% representing 70 respondents said that provision of ICTs facilities for accessing and utilizing information can solve the problem, while 12.1% representing 40 respondents said that prove the problems.

### CONCLUSION

From the analysis and summary of findings, it was discovered that the undergraduate students of Gombe State University do not adequately use the offline databases available in the library as many of them were not aware of their existence while others lacked literature searching skills to search information resources which might limit their capacity to use the databases. This was attributed to low research productivity to the students since many relevant and updated information is there in the offline databases.

### Recommendations

In the light of the problems observed by the researcher, the followings are the possible recommendations:

- The awareness of offline databases should be made available via all the necessary means in the library so that the undergraduate students would end there information needs.
- Adequate orientation programs should be adopted and conducted regularly to enable the students to be literate enough on searching the information from offline databases available in the library.

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- Proper orientation programs should be employed such as user education programs, database literacy, computer literacy program etc. should be carried-out for their users to be literate so that they make adequate use of the library materials.
- The University Library should provide sufficient power supply, ICTs infrastructure and facilities and more qualified staff that have the skills on discharging their duties effectively.

### REFERENCES

- Abdul salami, T. Lucky and Salami, F. Paulina (2013). Availability, Accessibility and Use of Information among Samaru Traders. *Journal of Education*, ABU Zaria. Kaduna State.
- ACRL, (2010).Information literacy. Retrieved from: www.ale.org/aldacrl.accessedon 16<sup>th</sup>June, 2016
- Afolabi, M. C. (1998). Introduction to Research Method for Writing Proposals, Project and Theses. Zaria: Alpha Publishers
- Aguolu, C. C. and Aguolu, I. E. (2002). *Libraries and Information Management in Nigeria*. Maiduguri: *ed.*-Inform Services.
- Aina, L.O. (2004). *Library and Information Science Text for Africa*; Ibadan: Third world Information Services Ltd P.1-13
- Aliyu, R.(2014). Accessibility and Utilization of Information Resources by students: A case study Kano State Polytechnic. (*Undergraduate project*, Bayero University Kano, Nigeria).
- American library association presidential committee (1989). *Information literacy*. Retrieved from: *http://www.fiu.edu/library/ili/ilicurt.html*
- Bryman (2001). An Introduction to Qualitative Method of Research: Lagos Publishing, Nigerian Limited p.3
- Burns, N. & Grove, S. k, (2001). *The practice of nursing research: Conduct, critique and utilization*.4<sup>th</sup> Ed. United States of America: W.B. Saunders Publishing Company.
- Burns, N. & Grove, S. k, (2005). *The practice of nursing research: Conduct, critique and utilization*. 5<sup>th</sup> Ed. St. Louis, Elsevier Saunders.
- Chirra, R. &Madhusudhen, M. (2009).Use of electronic journals by doctoral research schools of Goa UniversityIndia.Library*Hitech News*, 26(10):12-15
- Collins Concise Dictionary (5th ed.). (2005). Glasgow: Harper Collins
- Engldinger and Rajgoli. (2010). The Use of Information Sources and Services and its Effect on the Research output of Social Scientist in Nigerian University. Ibadan: Wisdom Publishers Limited.
- Ishola, B. and Obadare, S.o. (2014). Availability access to and level of use of academic library Information resources; study selected academic libraries in southern western Nigeria. *Journal of education and practice*, ISSN 2222-1735 (paper) ISSN 2222-288x www.google.com.ng/search?q=information+literacy+among+undergradetes+students+ pdf&client
- Krishnaswami, S. R. and Ranganathan, M. (2009). *Methodology of Research in Social Science*. Mumbai: Himalaya Publishing House

ECRTD-UK: https://www.eajournals.org/ ULR: https://doi.org/10.37745/ejmer.2014 European Journal of Mechanical Engineering Research (EJMER)

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Latimer, J. (2003). *Advanced qualitative research for nursing*. Great Britain: Blackwell Science. Lau, J. (2006). *Guidelines on information literacy for lifelong*. IFLA

- Liew, A. (2007).Data, information, knowledge and their relationship. *Journal of knowledge management practice* 712.
- Nworgu, B. G. (1991). *Educational Research: Basic Issues and Methodology*, Ibadan: Wisdom Publishers Limited.
- Roberts, K., & Taylor, B. (1998). *Nursing research processes: An Australian perspective*. Melbourne: International Thomson Publishing.