

UTILIZATION OF SEARCH SKILLS FOR RETRIEVAL OF ONLINE INFORMATION  
RESOURCES AMONG ARABIC ACADEMICS OF FEDERAL COLLEGE OF EDUCATION,  
ZARIA

BY

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FACULTY OF EDUCATION  
AHMADU BELLO UNIVERSITY, ZARIA

NOVEMBER, 2023

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## DECLARATION

I hereby declare that this dissertation titled “Utilization of Search Skills for Retrieval of online Information Resources among Arabic Academics of Federal College of Education, Zaria” has been written by me and it has never been presented to the best of my knowledge for the award of any degree or diploma in any institution. All literature consulted and cited were properly acknowledged.

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## CERTIFICATION

This is to certify that this dissertation entitled “Utilization of Search Skills for Retrieval of Online Information Resources among Arabic Academics of Federal College of Education, Zaria” meet the requirements for the award of Master’s Degree in Library Science (MLS) in Ahmadu Bello University, Zaria-Nigeria.

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## **DEDICATION**

To the blessed memories of my beloved parents, Alhaji Saidu Zakariya'u and Hajiya Aishatu Ayuba, and to my beloved wife, Habibat Armayau Suleiman, as well as my daughters and son, Ummu-khulthum Ibrahim, Fatima Ibrahim, Maryam Ibrahim, and Ibrahim Khalil Ibrahim.

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## **LIST OF ABBREVIATIONS**

FCE	-	Federal College of Education, Zaria
ICT	-	Information and Communication Technology
IIT	-	Indian Institute of Technology New Delhi
JMI	-	Jamia Millia Islamia New Delhi, India
JNU	-	Jawaharlal Nehru University New Delhi, India
JSTOR	-	Journal Storage
OCUL	-	Ontario Council of University Libraries
R & D	-	Research and Development

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## ABSTRACT

*This study investigates "Utilization of Search Skills for Retrieval of online information Resources among Arabic Academics of the Federal College of Education, Zaria." In order to achieve this objective, five (5) research questions were formulated, among which are: What types of search skills are possessed by Arabic academics for retrieval of online information resources in FCE Zaria? What types of information search strategies are used for retrieval of online information resources among Arabic academics in FCE Zaria? A quantitative research method was adopted, and a case study research design was employed in the conduct of this study. The population of this study consists of twenty-nine (29) academics in the Department of Arabic at the Federal College of Education, Zaria, 2019/2020 academic session. The instrument for data collection was questionnaire. A total of twenty-nine (29) copies of the questionnaire were administered to Arabic academics at the Federal College of Education, Zaria, with a total return rate of 28 (96.6%). The data collected for the study were presented and analyzed using descriptive statistics in the form of frequency count, simple percentage, and mean. The findings arising from the studies indicated that the types of information search skills possessed by Arabic academics in Federal College of Education Zaria were the ability to think before searching, the ability to search a specific site, the ability to search by author, the ability to search by keyword, and the ability to keep it simple. The types of information search strategies used for retrieval of online information resources by Arabic academics in Federal College of Education Zaria were the use of search engine, the use of file search, and the use of phrase searching. Based on the findings of this study, it could be concluded that the majority of Arabic academics in FCE Zaria were not accessing and utilizing available information resources due to lack of information search skills and search strategies. This could be necessitated due to the lack of information literacy skills and problems associated with the current trend in ICT. Therefore, the study recommended that there is a need for training on how to access and make use of the available resources with different search skills and search strategies. In order to compete in the 21st century library market, the college should adopt global best practices and immediately create the college library website. This will enhance the college's teaching and research operations. The Federal College of Education Zaria College library should take a leading role in creating more training programs among Arabic academics on information search skills such as ability to narrow search, ability to use punctuation, ability to apply filters, ability to search by subject, ability to search by standard number, and ability to search by title. And the college library should organize workshops for Arabic academics on how to effectively search information resources with different types of information search strategies such as the use of Boolean operators, truncation, proximity search, parenthesis, and wildcard.*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

One of the truths about modern society is that "information is everywhere." Information is a pervasive and essential part of our society and everyday lives. Humans are at their essence, processors and users of information. This is not a recent development, as humans have always been dependent on information to help them make decisions and guide their actions. The sheer volume of information and the complexity of information systems have increased largely because of advances in information technology. Information which also considered an essential commodity and has become a basic resource for individual development. Thus, information lays the foundation for competitive advantage.

According to Chin-Chung (2011), information is that "which is transmitted by the act or process of communication; it may be a message, a signal, or a stimulus; it assumes a response in the receiving organism and therefore possesses response potential; its motivation is inherently utilitarian; it is instrumental; and it is communicated in an organized or formalized pattern, mainly because such formalization increases potential utility."

Amy, (2022) defined Information searching is the process of finding or retrieving specific information to meet an information need, usually with the help of a computer system. There are different methods and techniques for information searching, such as keyword searching, hypertext or hypermedia links, logical operators, and semantic indexing. Information searching can be done for various purposes, such as academic research, personal interest, entertainment, or

problem-solving. Information searching can also involve different types of information sources, such as databases, websites, books, journals, or multimedia.

In olden days, students and academicians relied solely on printed sources, but now they are using print as well as electronic information resources. This development was made possible due to advancements in information and communication technology and the Internet and has changed the way we access and use information, which was unimaginable. Proficiency in digital technology and online communications become crucial skills for conducting evidence-based research in all realms, including medicine, public health, and higher education. As everyday life becomes increasingly digitized, Internet users face new challenges due to information overload, which creates anxiety among information users about how to seek and search for information online. Arabic academics are information seekers, which always tend to employ weak online search skills that may negatively affect the quality of their search results. In addition to poor online search skills, the results they get have a strong effect on their decision-making. Therefore, search skills have a direct correlation with their searching of online information for the Retrieval of online Information resources (Ukashatu 2014)

According to Ahmad (2022) Information search skills are the driving force behind information retrieval. However, with all the importance of information search skills, few studies investigate how people engage in search tasks or define their decisions and behaviours in the information retrieval process. András (2020) Further, a perceived lack of time, poor infrastructural facilities, technophobia, equipment, funding, training, inappropriate software, coupled with lack of knowledge and skills among staff, insufficient technical support, and the risks associated with implementing innovations in teaching were reported as the most prohibiting barriers to academic staff's use of electronic information resources in their teaching. Ahmad,



(2022) identified limited time and lack of effective information retrieval skills as factors affecting user access to electronic information.

Arabic information resources refer to information resources written in Arabic on a variety of disciplines. They are resources that are commonly found in the Arabic sections of various libraries and information centers. They are usually consulted by clients with Arabic backgrounds. Arabic information resources, on the other hand, could be defined as documents and other non-book resources in Arabic that are provided to meet the information demands of users with Arabic language background (Hafeez, 2021). In research Books of Grammar (Nahwul-wadhihi), Philosophy (Mundhiq), Rhetoric (Balagah), Morphology (Sarf), Literature (Adab), Philology (Fihul-luggah), Arudiy, Arabic Dictionaries (Qamus) and Encyclopedias (Mausuah), Arabic magazines (Mujallah) and newspapers (Jaridah), and a Book of Sentences Analysis (Al'ierab) in print and electronic formats. They may include print journals, magazines, newspapers, print books, radio, and television broadcasting. The non-print or Internet-based formats include: e-journals, e-books, e-thesis, e-newspapers (HTML or Acrobat PDF), streaming videos, podcasting, etc.

### **Online Arabic Information Resources**

Information resources play a significant role in the day-to-day activities of any academic institution. According to Ukashatu (2014), online Arabic information resources are generally in the form of electronic books, electronic journals, electronic magazines, electronic newspapers, and Internet-based resources. Online information resources have become a major element of college library collections worldwide. Online Arabic information resources are resources that are domiciled within Arabic language offline/online databases and the Internet

## **Information Search Skills**

Information search skills involve a series of activities and capabilities that an individual adopts in order to locate where information is, its types and formats, and ways of accessing the information. It also involves ways of retrieving, evaluating, and utilizing information. According to the Library Guide (2021), information search skills are viewed as consisting of a series of activities aimed at finding information to address challenges. Nachiamas and Gilad (2016) have explained taxonomy of three different information search skills: search engine skills, browsing skills, and direct access skills. Search engine skills consist of six different types: keyword search skills, wide search definition, and complex search, use of general knowledge, computer convention, and Boolean search. Browsing skills consist of two techniques: the directory," which means browsing through a directory or catalog; such an approach can be found on the Yahoo Website; and the "specific portal," which is related to the subject of interest. Direct access skills are direct typing, where participants simply type the address of the known URL to access information on the topic to be explored.

Information search skills extend into realms of critical thinking and ethical usage of information, which may be presented in a number of formats, from the simple to the complex, and may include illustrations, photographs, charts, graphs, tables, multimedia, sound recordings, computer graphics, or animation. Getting information in a variety of formats requires search skills beyond the basic ones of reading and writing. To negotiate complex information formats, we must also be skilled in other literacy areas such as media literacy, computer literacy, and network literacy (Ukashatu, 2014)

Search skills refer to an organized structure of key terms used to search for online information. The search skills combine the concept of the search question in order to retrieve an accurate result. These techniques are Boolean logic, parenthesis phrase searching, truncation, wildcards, and field searching.

### **Access and Utilization of Online Arabic Resources**

Access to online Arabic information resources is concerned with the use of internet facilities to access the resources that are meant for teaching, learning, and research, as well as personal and community development. The development of online information resources has made it easier to access relevant information in different areas, especially for teaching, learning, and research.

According to Owolabi (2013), "Internet resources are a great tool for collaborative research among academic staff. Internet resources provide a way for the academics in universities to have better access to each other and serve as tools for facilitating teaching, learning, and research". Online information resources have become an integral component of academic library collections worldwide. The resources are regarded as essential for learning, teaching, and research activities. According to Kumar and Zhang (2015), online information resources provide many advantages over traditional print resources, such as 24/7 access, universal access, saving physical space, linking indexing and abstracting databases, accessibility from the user's home, office, or dormitory irrespective of whether or not the physical library is open, the ability to get usage statistics that are not available for print collections, and their relative ease of maintenance. Online Arabic information resources are convenient to search and access a vast amount of information within the shortest possible time. A good number of online

Arabic databases are available on the Internet, which can be accessed free of charge or through a university's subscription to provide free online database access to their staff and students to support academic work and activities, especially in the areas of teaching, learning, and research, as well as self- and community-based development (Ukashatu, 2014).

Utilization of Online information resources are concerned with the use of a variety of information resources for teaching, learning, and research activities. Such resources include online books, journals, theses, and dissertations; online newspapers and magazines; indexes and abstracts; internet-based databases; online encyclopedias; and dictionaries, etc. Khalid and Hafeez (2021) found that Arabic electronic information resources (online and offline) are used for the purpose of conducting scientific research, teaching and community development.

Nina's (2018) study found that factors such as easy access reduced physical visits to libraries. The user-friendly features of online resources offer a comfortable platform for participants to use e-books, e-journals, e-magazines, e-newspapers, e-theses, e-dissertations, etc. Many academics in universities rely on online information resources as their sources of information because they provide many advantages over traditional print-based resources. They contain current information because they are updated frequently. They offer advanced search capabilities and flexibility in the storage of results. They enable access to and use of information without restriction of time or location.

Several studies were carried out, mostly focusing on information literacy, Search strategies, online database search strategies, access and utilization of online information resources, the purpose and challenges of the use of the Internet, and online information seeking behavior. However, none of these studies covers search skills for Retrieval of online Information resources among Arabic academics; despite their unique information resources, this study sets out to

investigate "utilization of search skills for Retrieval of online Information resources among Arabic academics of the Federal College of Education, Zaria".

## **1.2 Statement of the Problem**

Information search skills are essential for solving problems in the digital age. The digital age is a period in human history characterized by the widespread use of information and communication technologies in various aspects of life. The digital age poses new challenges and opportunities for problem-solving, as information is abundant, diverse, and dynamic. To solve problems effectively in the digital age, individuals need to develop information search skills, which are the abilities to locate, evaluate, and use information from various sources and formats (Chuanfu and Larsen, 2022)

Information search skills play a crucial role in academic lives, as they enable them to find and evaluate useful information related to a specific topic of their interest. These skills include performing investigations, critical analysis, and forming solutions to particular problems. Academics value search skills and benefit employees in all positions. Having these skills are imperative to advancing your career, as they directly relate to your ability to gain insight and inspire action in both yourself and others. Search skills are necessary for information seekers for several reasons, including allowing individuals to: Identify problems that hinder performance or task completion, Come up with viable solutions to identified problems, Evaluate online information resources and the most effective way to use them to promote increased efficiency, Come up with novel services or products, Identify the needs of a target customer and better meet those needs through products and services, Time management, Stay up-to-date with vital trends and lastly Learn new ways of doing things to adapt and evolve to meet information needs.

Despite the importance of information search skills coupled with the shift from print to electronic based resources, search skills are minimally utilized by Arabic academics. As observed by the researcher, low utilization of these information resources may be attributed to low search skills. This above factor could it be due to technophobia, inadequate search skills, lack of awareness? This could result in poor quality teaching, learning, and research. This could affect their performance as they spend long hours searching for specialty information resources.

In light of the aforementioned problems, this research was undertaken to assess search skills for Retrieval of online Information resources among Arabic academics at Federal College of Education, Zaria.

### **1.3 Research Questions.**

The following research questions guided the study.

1. What type of Search skills are possessed by Arabic academics for Retrieval of online Information resources at Federal College of Education, Zaria?
2. What types of Search strategies are used for Retrieval of online Information resources among Arabic academics at Federal College of Education, Zaria?
3. Through which means do Arabic academics access online information for information resources at Federal College of Education Zaria?
4. For what purpose do Arabic academics at Federal College of Education Zaria use online information resources?
5. What challenges do Arabic academics at Federal College of Education Zaria face while searching for information resources?

#### **1.4 The Objective of the Study**

The study has the following objectives:

1. To find out the type of information search skills for Retrieval of online Information resources by Arabic academics at Federal College of Education Zaria.
2. To identify the types of information search strategies used for Retrieval of online Information resources among Arabic academics at Federal College of Education Zaria.
3. To examine the means by which Arabic academics have access to online information for Retrieval of online Information resources at Federal College of Education Zaria.
4. To identify the purpose to which Arabic academics in Federal College of Education Zaria utilize the information resources.
5. To find out the challenges faced in accessing information resources by Arabic academics of Federal College of Education Zaria.

#### **1.5 Significance of the Study**

This study would benefit academics in the Arabic department F.C.E. Zaria, librarians, and the management of the institution. For the academics in the Arabic department, the study would improve upon the current approach to information search strategies and skills for to search for Arabic information resources, because this study has identified effective search skills and strategies for Retrieval of online Information resources that best suit academics in the Arabic department when accessing online Arabic information resources. Furthermore, this study is actually timely because it would help librarians improve their online information searching skills by providing them with the requisite skills to improve upon, and in order to effectively meet their online information needs of their patrons. Additionally, the study will assist the management in

identifying some of the challenges faced by academics in the Arabic department and librarians in accessing online Arabic information resources. Lastly, this research work would add to the existing research in the field of library and information science, especially Searchskills. Besides, this research work would be of great importance to researchers who will plough this area of research to improve upon information resources provision in higher institution of learning in Nigeria and beyond.

### **1.6 Scope of the study**

This research covers the utilization of search skills for retrieval of online information resources among Arabic academics of the federal college of education Zaria. The types of search skills are ability to think, ability to keep it simple, ability to narrow search, Boolean operators, truncation search engines, proximity search, field search, parenthesis, wildcards and phrase searching.

### **1.7 Operational Definition of Terms**

The following terms are operationally used for the purpose of this study.

**Arabic Academics:** refer to the teaching staff of the Department of Arabic in Federal College of Education. Zaria

**Information Search skills:** these are activities and capabilities used in finding out relevant information from the Internet, online/offline databases, search engines etc. it includes what to search, how to search and why to search.

**Information retrieval:** Information retrieval is the process of finding and obtaining information that is relevant to a user's query from a collection of data sources i.e internet, and online/offline databases.



**Information resources:** refers to any information resources that are domicile in online/offline databases, internet and other sources..

**Utilization:** To use the right information resources at a right time in an effective way.

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## **CHAPTER TWO REVIEW OF RELATED LITERATURE**

### **2.1 Introduction**

This chapter reviews the literature relevant to the study. The literature was derived from books, journals, and online reference sources, with the aim of providing a better perspective. In order to achieve this effectively, the review is organized under the following sub-headings:

2.2 Concept of information Search Skills

2.3 Types of Search Skills Possessed by Academics

2.4 Search Strategies

2.5 Access to Online Information Resources

2.6 Purpose of Utilizing Online Information Resources

2.7 Challenges Faced in Searching for Online Information Resources

2.8 Review of Related Empirical Studies

2.9 Summary of the Review

### **2.2 Concept of Information Search Skills**

The concept of information Search skills can be defined as organized activities through which a person conducts a literature search on the internet and in online/offline databases. They refer to a set of experience search statements entered into a search system to retrieve desired information resources. Also, information Search skills, employed or used by library users, mean access to information resources that are domiciled on the internet and online/offline databases. This is the purpose of using information resources.

According to Brehm (2010), information search skills can be defined as the application and organization of search keywords and symbols in order to conduct an effective search in an online environment and to be able to extend or narrow search results accordingly.

Online search is an interactive and dynamic process with the ability to provide immediate feedback to the information seeker and has the following characteristics:

1. System's ability to interact with the user (feedback and therefore refinement of search skills)
2. Remote access
3. Currency
4. Faster access to information
5. Multi-user applications/access

Santhi and Radhakrishnan (2014) examined, in a study titled "Usage Pattern of Electronic Resources among the Research Scholars at Anna University of Technology", The findings of this study indicated that the University of Coimbatore reported that 20% of researchers and scholars are using the e-resources at their campus, and 5% replied that they are using e-resources outside campus, like computer centers and at home. The majority of the respondents (73%) access e-resources both on campus and off campus. It was further observed that 86% of research scholars are using e-books for their research and that 52% of research scholars are using e-databases for their research.

In the same vein, Ansari (2022) discussed the different types of information sources. The databases are mainly divided into two major divisions: i) reference databases and ii) source databases, which further categories as bibliographic databases, full text databases, statistical databases, and image databases on the basis of the nature and scope of the contents. Online databases open up great opportunities for academicians and researchers to find and access a

corpus of knowledge. They have emerged as very valuable and useful sources for time-saving and R&D activities. Some popular online databases, including Emerald Insight, Science Direct, and JSTOR, have provided library users with opportunities and sources for learning. Users from different academic fields all over the world use online databases to seek the latest information in their areas of study and to consult different electronic resources. However, use of online databases in academics has grown substantially in recent years, although problems of access, lack of skills, and applicability of information remain barriers to effective use of online databases as a source of information. Online search is used to describe the process of posing a query to an information system in order to fulfill a specific request (Hartly, 2022).

### **2.3 Types of Search Skills**

Search skills are activities learned during the time of studies at colleges or universities to help not only in the time of studying but throughout life, at any time when the need to find and use information resources arises. These are various types of information search skills used by information seekers.

Granite School District (2022) identified the types of search skills as follows:

**Ability to think before searching.** Think about the topic or question you would like to search for. Think about how you would describe the topic, build a focused search to find relevant information on the topic, and choose 3 or 4 keywords.

**Ability to keep it simple.** Describe what you want in as few words as possible.

**Ability to be specific.** The more precise your search terms are, the more precise your search results will be. Avoid general or common words.

Imagine how the webpage you are hoping to find will be written. Use words that are likely to appear on that page.

**capitalize, ability to capitalize, Ability to punctuate and spell** Don't really matter. In most cases, search engines will ignore capitalization and punctuation in a search and will generally auto-correct your spelling mistakes.

**Ability to narrow search results** There are several ways to help you narrow your search results to find exactly what you're looking for.

In addition to the above definition, Xie (2010) sees that search skills comprise a systematic set of different approaches that take into account both planned and situational elements. However, one could relate search skills to a plan that the information seeker employed to achieve academic activities.

## **2.4 Search Strategies**

Search strategies are series of processes, techniques, and ways in which researchers adopt them in order to locate where information is, its types and formats, and ways of accessing the information. It also involves ways of retrieving, evaluating, and utilizing information. These methods are updated regularly to keep pace with the speeding growth of the information volume. Search tools are equipped with facilities with which users should be familiar if they are to make the best use of them. Searching strategies differ from one tool to another. But in general, all of them have common characteristics, an understanding of which is important for the user's effective application of such systems. According to Life Pacific University LPU (2019), "the seven most frequently used online searching techniques are: i. Boolean Searching; ii. Phrase

Searching; iii. Proximity Searching; iv. Field Searching; v. Truncation; vi. Parenthesis; vii. Synonyms.

According to Life Pacific University, LPU Boolean Searching involves a structured search process that allows the user to insert words or phrases such as AND, OR, and NOT to limit, broaden, and define the search results. Phrase searching narrows the search results by allowing you to define precisely how you want the words to appear. Proximity searching includes searching with keywords that the user wants to be adjacent to each other, Field Searching: This search term limits the search to a specific field.

Information retrieval skills may be defined as a set of abilities that enables an individual to recognize when information is needed and to have the capacity to locate, evaluate, and use effectively the needed information. All information users, which include librarians, need to develop skills for searching, evaluating and managing information if they are to be effective and critical consumers of information particularly in academic institutions.

Thus, effective information retrieval skills can be demonstrated by:

- The ability to evaluate bibliographic online search strategies.
- The ability to select and justify the appropriate search techniques in order to carry out independent research
- The ability to critically evaluate search results.

Jansen and Pooch (2019) revealed that there were differences in the search strategies of online information users and users of traditional information systems in terms of terms per query, search session length, and use of Boolean operators or advanced search features.

Wolfram and Hong (2020) examine a study on "Traditional Information Retrieval for Online Information Users" and discover that there is a difference among different groups concerning the use of electronic information resources. One of the researchers further revealed that the young faculty members use electronic information resources more than the older faculty members in Isfahan public University, Iran.

## **2.5 Access to Online Information Resources**

Finding the right information in the online environment is not a matter of chance. Creating a search strategy is very important for a successful search result. This implies that applying the knowledge and skills to search relevant information will lead to successful research outcomes, even when the information user is not familiar with the research titles or topic at hand (Jimi et al. 2020).

Searching for online information requires general knowledge and skills by the general information seekers, as well as the means of accessing information resources. The means of accessing such resources are the following:

1. Using the internet (LAN or wireless)
2. GSM network
3. Using the Internet Café
4. Using modems,
5. through the library website
6. Using online search engines

While the knowledge includes knowledge on how to create a search statement using keywords, knowledge on how to use the databases appropriate to your research titles, How to use



the keywords and control the language How to make use of an advanced search strategy How to make use of different search approaches if necessary and continue to identify applicable keywords and controlled vocabulary to go back

Musa (2014) reports that academics access and use the online Arabic information resources available. The study also revealed that over 70% of the respondents indicated smart phone (GSM) connectivity and personal modems as the means of accessing online Arabic information resources at Bayero University. Due to a lack of Internet connectivity in their respective offices, the respondents access online Arabic information resources through Google search engines and other online mediums instead of searching through available online library databases. Lastly, over 90% of the academics teaching Arabic and Islamic studies in BUK access and utilize online Arabic information resources for the purpose of research activities, theses writing, lecture notes, teaching, and preparing writing for publication.

Falk (2015) reviewed the online library databases of the United States Library and described the availability of online databases for library patrons in the USA. His major findings are: (i) Online databases are now widely available to library patrons in the United States, and many patrons can tap into these databases from their own computers; and (ii) larger libraries and library systems can afford to offer their own choice of databases to their patrons through their internet websites. Lal and Paavola (2010) observed that postgraduate students used online information resources for educational purposes. Adding to the above, Xie (2010) sees that search skills comprise a systematic set of different approaches that take into account both planned and situational elements. However, one could relate the search strategy to a plan that the information seeker employed to achieve his academic research activities.

Thanuskodi (2012) also observed that students in Tanzanian universities lacked knowledge and searching skills when using electronic information resources. Obura (2008) found that network and connection problems, irrelevant information and information overload, a lack of information searching skills, power outages, and so on were the major challenges in the utilization of electronic information resources.

Mehrad and Rahimi (2019) and Sife (2013) discovered that by the age of 23–30, information search skills increase. In other words, younger information seekers were found to be more skilled in online and offline information searches. Sit further discovered that middle-aged users have problems searching and accessing the online databases. This problem has been evident with question-making, understanding key words, and phrase search with Boolean operators. It also conducted a study on "Using online databases to find journal articles on injury prevention and safety promotion topics: how do Safety Lit subscribers use other databases? Their searches in other databases are performed using a wide variety of online bibliographic databases, but only 10.3% queried two or more databases the last time they searched. Almost all (93.9%) respondents have used the biomedical database PubMed, but other databases are seldom used. For instance, the next most frequently used database, PsycInfo, was used by only 16.9%. Even fewer respondents reported that they used databases that focused on social science, law, and engineering resources. They further revealed that the majority of respondents did not focus their last search by using Boolean terms.

Mehrad and Rahimi (2019), who conducted a study on online search skills at Shiraz University, state found that IR tools have already been designed and used to make information on the web beneficial to users. Therefore, recommended that concentration on using the best search strategies is significantly needed.

According to Xie and Joo (2010), "the Internet search strategies include the application of Boolean operators, phrase searching, proximity searching, fuzzy searching, stemming, truncation searches, and wildcard searches." In the modern information environment, it is important to have an understanding of how to search databases effectively. There are a number of techniques that people can apply to retrieve relevant search results, either to narrow a search or to broaden a search.

Kyrillidou and Plum (2012), in their study entitled 'Measuring use of licensed electronic resources', analyzed the use of e-resources by 21 member libraries of the Ontario Council of University Libraries (OCUL). They found that 68% of the users access e-resources off-campus, 19% access e-resources from an on-campus location but outside the library, and only 12% access e-resources from the library premises. 68% of the undergraduate students, 18% of the post-graduate (graduate or professional) students, and only 2.5% of the faculty use e-resources from within the library. The off-campus use of e-resources increased from 45% in 2004–2005 to 68% in 2010–2011. Nguyen and Hoang (2012) conducted an evaluation of the skills and the use of electronic databases according to the variables of age, qualification, and experience among the university faculty members (a case study at Isfahan University) and revealed that faculty members with over 9 years of teaching experience have significant differences in skills on how to search the electronic information resources.

They further stated that faculty members with experience have many advantages and accept searching for electronic information resources and services due to their importance to academic activities. The results of this research are also in line with Nguyen et al. (2012). Conducted a study on "Users' Searching Behavior in Using Online Databases at Vietnam National University, Ho Chi Minh City" and discovered that simple search, or keyword search, was the major search

employed the most (77.7%), followed by title search (62.5%), and then author search (36.9%). There were 20.5% of users using advanced search (using search limitations), but 51.9% never used it, and 22.2% of users using expert search (using operators such as NOT and OR), but 51.8% never used it. About 91% learned by trial and error (playing with functions and options offered by the search engine and then discovering how to search), 89.2% learned by reading guideline materials from the database itself, 81.7% learned by reading guideline materials from the Central Library websites, 63% learned from friends, 59.7% learned from training sessions, and 57.4% learned by asking library staff. Poor skills in database search, the English language, and the low speed of online transmission were the major challenges in the utilization of online databases. The study recommended that Upgrading infrastructure, increasing the number of databases, and improving communications between the library and users are the three main things users expect from the library's support.

The researcher recommended that information literacy programs be integrated into the school curriculum in order to increase the level of utilization of online database resources and services. Ahmed (2013), in his study, surveyed 517 faculty members from eight public universities in Bangladesh to analyze their pattern of use of e-resources. They revealed that 94.39% of the faculty members were regular users of e-resources; 94.06% of the faculty members use e-journals; 57.38% use e-books; and 22.13% use bibliographical databases. 14.55% had access to the e-resources from their university libraries. 94.47% of the faculty members use e-resources for research purposes, 83.63% for teaching, and 64.96% for learning or updating them with the latest of what's happening in their respective areas. He also pointed out that a limited number of e-resources and slow Internet bandwidth are the major problems being faced by the faculty members. Helen Nneka (2014) discovered that the respondent was ignorant of online search

strategies, including Boolean operators, phrase searching, sourcing information from the university library databases, and sending e-mail to researchers to send them research materials. Roslina et al. (2014) conducted a study on "Search Strategy Formulation among Library and Information Science Students in Online Databases." Three research questions were answered. They found out that students used 'specific search and "subject search," the two most commonly applied search strategies in online databases. The researcher further reported that the student was very satisfied with the results retrieved through this feature as well as the "Boolean operator (AND)." Lack of practice and training in searching skills and a lack of attendance at literacy classes are the reasons why users do not get the related information.

The study recommended that DLIS encourage students to attend courses related to information retrieval and search strategies and techniques, which will help users improve their online search skills. Anafo and Filson (2014) observed that the majority of students today are more reliant on online search engines such as Google and Devil Finder to find information when researching research topics. Their attention was not on the quality academic resources available in libraries. This situation creates a new challenge for online reference librarians and any persons in charge of online databases in the university libraries; therefore, they must now play a more important teaching role by directing students and any other library users to high-quality print and electronic information resources and educating them on the need to evaluate web resources.

## **2.6 Purpose of Utilizing Online Information Resources**

Academics use online information resources for diverse purposes, as demonstrated in the literature. Obaje and Camble (2019) posit that online information is mostly used for literature searches during project/dissertation and thesis writing as well as personal research by staff.

Academics at Obafemi Awolowo University, Ile-Ife, use electronic resources mostly for literature searches in research and professional growth (Omotayo, 2010).

Azubogu and Madu (2017) did a survey "on the use of computer and internet technology among the teaching staff of Imo State University", Nigeria, and reported a high level of use of information technology by the respondents. They gave reasons for the use of the internet by teaching staff to include ease of use, convenience, free access to the internet, and access to free information on the internet, among others. In another study, Owolabi (2013) explored and "assessed the impact of internet competence on the use of the internet for teaching and research activities among academic staff of the University of Botswana". The findings of the survey showed that most academic staff at the University of Botswana use the internet in their research and teaching activities.

## **2.7 Challenges Faced in Searching Online Information Resources**

Globalization, digitization, the information age, etc. are terms used to describe the present age, a period characterized by an information glut that requires the use of electronic means in order to access and use relevant information that is made available on the Internet. The application of computers has affected every aspect of human life. These include defense, education, commerce, health, security, transportation, and, more importantly, science and technology, to name but a few. The computer is a multipurpose machine that can be used in all sectors of any economy because of its ease of use and applications. Obiora (2014) indicated that the "computer remains the major means of communication, information transfer, and information access and use, though online takes the application of the computer.

Kefas and Gilbert (2015) report that irrelevant information, power outages, issues of network or slow internet connectivity, the need to filter the result from search information overload, and inadequate search skills were the major challenges faced by postgraduate students at Modibbo Adama University of Technology, Yola. Abdullahi and Haruna (2020) found that lack of basic knowledge of ICT is the second major constraint after the problem of erratic power supply to the use of ICT in the college libraries in Nigeria. This was corroborated by

Abdullahi and and haruna (2020), though the percentage that represents the hypothesis is low as compared to other constraints such as erratic power supply, networking, and availability of equipment, among others. Ali (2015) study among the users of the Indian Institute of Technology (IIT) in Delhi found that the majority of users face difficulty while browsing for e-resources. Lack of printing facilities, terminals, and trained staff are the major reasons that discourage users from accessing electronic information services.

Wolman and Peritz (2013) cite limited time and a lack of effective information retrieval skills as factors affecting users' access to electronic information. Therefore, a perceived lack of various resources, such as time, equipment, funding, training, and insufficient information on software, coupled with a lack of knowledge and skills among staff, insufficient technical support, and the risks associated with implementing innovations in teaching, particularly those using technologies, were cited as the most prohibiting barriers to academic staff's use of electronic information resources in their teaching.

## **2.8 Review of Related Empirical Studies**

Several studies were conducted on online information Search skills; for example, Muhammad et al. (2018) conducted a study on the study investigates the level and sources of learning Online Information Searching (OIS) skills among business studies students in Lahore,

Pakistan. The research used a cross-sectional survey method and 470 students from 24 public and private universities. The results showed satisfactory searching skills, with no significant differences based on variables like gender, age, university type, degree level, or major academic subjects. Short courses and training workshops positively impacted the skills. The study fills a gap in existing literature and will be helpful for Library Information Service (LIS) academicians, librarians, professional associations, and trainers in designing and implementing training programs for university students in OIS. This study will also be helpful for Higher Education Commission (HEC) national digital library for selection of appropriate databases for business students.

In the same vein jansen (2019) conducted a study on web search behavior of postgraduate student at sokoine university of agriculture, tanzani. In this study a survey was carried out that the findings suggest that search engines have become important tools for finding information on the Web. On the other hand, very few respondents were using subject directories, despite the fact that these are meant to overcome the problem of unorganized web content. Yahoo Directory was frequently used by 37.9% of the respondents, followed by Open Directory (25%), while other subject directories had very few users. This could be due to a lack of awareness and training among students. In view of these, effective use of strategies by libraries and parent institutions are needed to promote the utilization of e-resources for academic purposes. It is also recommended that information literacy programs be integrated into the curriculum in order to optimize the use of Web services. Libraries should address contextual and technical issues such as access to facilities, awareness of available resources, search skills, and access restrictions such as passwords in order to promote usage levels. Libraries should also look into the possibility of integrating e-resources into their OPACs for greater visibility and to enable users to search



several databases simultaneously. Future research may focus on the web search behavior of different user groups across fields of study.

Similarly, Gali (2011), in his study titled *Use and User Perception of Electronic Resources at the United Arab Emirates University (UAEU)*, where a survey research study was carried out using all UAEU full-time faculty members. The study targeted 560 full-time faculty members at the colleges Humanities and Social Sciences, Sciences, Education, Business and Economics, Engineering, Information Technology, Food Systems, Shariah and Law, and Medicine and Health Sciences. In this study, a stratified random sample was used to draw 25% sample from the key subgroups, i.e., colleges, departments, and disciplines. In this regards, 140 questionnaires were sent to the faculty members via E-mail and phone calls were used to follow up with participants. The total number of responses was 125, with a response rate of 89%. The findings arising from this study reported significantly low usage for e-books, bibliographic databases, and e-journals. Paradoxically, the low level of usage of e-resources reported in this study might be a as a result of a lack of awareness about the e-resources provided by the library or of ineffective channels of communication on campus, as reported in earlier research.

While examining the provision of online information services in Nigerian academic libraries, Gbaje (2007) conducted a qualitative using a purposive sampling technique to collect data from ten academic universities through an online survey. The findings of the study revealed that the shortage of skilled web technology of librarians, poor information technology infrastructure, and high cost of equipment have hindered Nigerian academic libraries from providing online information services. The study conclude that the demand for desktop access to electronic resources by the academic community stresses that Nigerian academic libraries provide their services and resources online and remotely. Also, library schools must review their

curriculum to reflect the need in the work field, and the heads of libraries must also invest in the retraining of their staff by providing sponsorships to attend workshops and conferences organized by their professional bodies.

Kumar and Kumar (2018) conducted a study on Use of Electronic Information Sources by the Academic Community: A Comparative Study International CALIBER-2008. A total of 300 survey returns indicate that students and faculty use the electronic information in support of their study and teaching. The purpose of this study was to determine how the academic community at various professional colleges uses electronic information sources for work-related purposes. Although the majority of students and teachers generally feel that electronic information sources provide faster and more reliable information, they still prefer to use print as well as electronic information sources. The rapid growth of new technologies has changed the communication process between people and reduced the cost of communication for individuals. Electronic information sources can be seen as the most recent development in information technology, and they are one of the most powerful tools ever invented in human history. In the modern era, it has changed the way people communicate with each other and the way information is accessed. It has rapidly become an established medium of communication and connects people across the globe, removing geographic boundaries and simplifying access to information. Electronic sources of information are becoming more and more important for the academic community in terms of accessing information at the right time and in the right form. The use of resources in an electronic environment becomes more pronounced when information becomes more readily available in electronic formats. This would result in an increase in the use of CD-ROMs, online databases, and the Internet. A substantial body of literature already exists on the acceptance and use of electronic information sources in academia. Examined the literature

in the fields of library and information science to gather some perspective on students' use and faculty expectations of electronic information sources. However, the previous studies conducted by the above authors focused on the use of internet sources and services, the use of search engines, and awareness of search engine strategies. This situation has given rise to a study of how users utilize the electronic information sources as a whole and also to know the opinion about the electronic information sources, their advantages, and the problems faced in the use of these sources by the students and faculty of engineering, medical science, and management studies in Bangalore city.

Mamman and Magaji (2022) conducted a study titled "Challenges of Access and Use of Electronic Information Resources among Students of Higher Institutions in Taraba State, Nigeria." The study employed quantitative research methodology with a cross-sectional survey design to elicit data from the respondents. The study population comprises the three (3) higher institutions with available and functional electronic information resources, namely: Taraba State University, Federal University, Wukari, and Taraba State College of Nursing and Midwifery, with 10748 registered users who constituted the population, and out of these, 370 users were selected using a simple random sampling technique. A self-developed questionnaire was used as an instrument for data collection. The data gathered were analyzed through descriptive statistics via the statistical package for social sciences. The findings of the study revealed that various types of electronic information resources were available in the libraries of higher education institutions in Taraba State. These include e-books, online databases, e-journals, and CD-ROMs. It was also found that the extent of access to the available EIRs was moderate, and poor internet connectivity, insufficient computer terminals, and inadequacy of information and communication

technology (ICT) skills were some of the major factors working against the smooth access and use of EIRs in the institutions studied.

## **2.9 Summary of the Review**

This chapter reviewed various research studies in the field of information search skills and Search strategies. A lot of ideas have been brought forward by various researchers in the literature reviewed. It is pertinent to note that the ability to search through literature online goes a long way toward helping academics perform well. Search skills have been defined as a series of activities and capabilities that an individual adopts in order to locate where information is, its types and formats, and ways of retrieving, evaluating, and utilizing that information. While Search strategies involve a series of processes, techniques, and ways in which researchers adopt them in order to locate where information is, its types, and its formats, they also extend into realms of critical thinking and ethical usage of information, which may be presented in a number of formats, from the simple to the complex, and may include printed text, illustrations, photographs, charts, graphs, tables, multimedia, sound recordings, computer graphics, or animation. Although all the literature consulted by the researcher concentrated on information literacy, Search strategy, online database search strategy, access and utilization of online information resources, purpose and challenges for the use of the internet, and online information seeking behavior, none of this literature focuses on the utilization of Search skills for retrieval of information resources, particularly for Arabic academics at the Federal College of Education, Zaria. Hence, this research stands to fill this gap.

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## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter deals with the methodology employed for the study. It describes the following:

3.2 Research Methodology Adopted for the study

3.2.1 Research Design Adopted for the study

3.3 Population of the Study

3.4 Sample Size and Sampling Technique

3.5 Instrument for Data Collection

3.6 Validity of the Instrument

3.7 Reliability of the Instrument

3.8 Procedure for Data Collection

3.9 Procedure for Data Analysis.

#### **3.2 Research Methodology Adopted for the Study**

A quantitative methodology was adopted for the study because it involves the process of collecting and analyzing numerical data. The purpose of using quantitative research methodology is to generate knowledge and create understanding about the social world (Allen, 2017).



### **3.2.1 Research Design Adopted for the study**

The research design adopted for the study was a quantitative case study research design. According to Salih and Shal-Yaqub (2014) “A case study research design usually involves qualitative methods, but quantitative methods are sometimes also used” which was employed because it is a detailed study of a specific subject, such as a person, group, place, event, organization, or phenomenon. Case studies are commonly used in social, educational, clinical, and business research. Case studies are good for describing, comparing, evaluating, and understanding different aspects of a research problem.

### **3.3 Population of the Study**

The population of the study was comprised of all academics in the department of Arabic at the Federal College of Education, Zaria. The demographic characteristics of the population are shown in Table 3.1 below.

**Table 3.1: Academics in Arabic Departments of the Federal College of Education, Zaria**

Department	Male	Female	<b>TOTAL</b>
<b>Arabic language</b>	<b>26</b>	<b>3</b>	<b>29</b>

Source: Department of Arabic F.C.E Zaria 2019

### **3.4 Sample Size and Sampling Technique**

Sample size refers to the systematic and carefully selected representation of the population in the study. Usually, if the population is too small for the researcher, Therefore, to arrive at the sample size, the census sampling technique will be applied as it is in this case. The

sample size of the study was twenty-nine (29), and since the population is not large and manageable, the researcher used the whole population for the study.

In the quantitative case study, census sampling technique was applied since the size of the population is not large and it is homogeneous. Some scholars, such as Morris (2015), recommend total enumeration when the population is small. One of the merits of this method is that it allows the researcher to circumvent sampling errors since the entire population is encompassed in the study.

Bernard (2012) supported this by asserting that if the population of a study is less than 200, the entire population should be used for the study. Therefore, this study used the entire population. It is scientific and rigorous to study an entire population. It helps to get deep insights into what the population is interested in (Arnab, 2017). More so, Morris (2015) emphasized that when working with a smaller population, total enumeration is recommended. For precision, one wants virtually the whole population to attain correctness, and the researcher got an extensive study of the population with a great level of precision in data assemblage, which also eradicates mistakes and unfairness in sampling. These are the reasons why total enumeration was adopted for the study.

### **3.5 Instrument for Data Collection**

Questionnaire was used as the instrument for data collection for this research. Considering its significance, Osuala (2005) posited that a questionnaire is more economical because of the time involved in conducting research. Also, the questionnaire's ability to elicit quantitative data on unobservable behaviours such as feelings, attitudes, ideas, opinions, and viewpoints made it an instrument of choice. The questionnaire is divided into five sections.

Section A carried demographic information about the respondents. Section B contained questions on the types of Search skills possessed by Arabic academics for the retrieval of online information resources in FCE Zaria. Section C contains a question on the type of Search strategy used for Retrieval of online Information resources. Section D contains questions on the means of accessing the online information for the retrieval of online information, and Section E contains questions on the purposes of utilizing the online information resource among Arabic academics. Section F contains questions on the challenges faced in searching online information resources.

### **3.5.1 Validity of the Instrument**

In order to ascertain the validity of the instrument, the researcher subjected it to research experts that are statistician, language experts and researchers, supervisors for validation. The instrument was corrected, and the comments of the supervisors were used to improve the item's structure and format. The instrument was further subjected to both face and content validation. The decision by the researcher to adopt face and content validity was based on the remark by Ibrahim (2013) that validation by expert is an effective method of measuring the accuracy of the instrument and determining the adequacy of coverage of a topic.

### **3.5.2 Reliability of the Instrument**

The reliability of the instrument was established by conducting a pilot study within three weeks at the College of Education, Gidan Waya Kafanchan, Kaduna State. The purpose of the pilot study was to determine the reliability of the instrument. The choice of this college of education was made because it is not part of the research population of the study. In this regard, the researcher personally distributed the instrument to 25 academics in Arabic department; this decision was in line with Adigun (2011), who noted that pilot testing is usually done on a much smaller scale than the main study but under similar conditions.

The researcher used the interrater type of reliability test, which involves the same test conducted by different people. The reliability coefficient of the instrument was to be 0.86, which indicated that the instrument is reliable. According to Adigun (2011), a coefficient of 0.86 and above is said to be reliable.

### **3.6 Procedure for Data Collection**

An introductory letter was given to me from the department of library and information science at Ahmadu Bello University, Zaria. The researcher, with the help of three research assistants from the department of Arabic, administered the instrument. The administration of the instrument was conducted under strict confidentiality, as respondents were given full assurance that their responses would be treated confidentially. Subsequent follow-up was intensified to ensure speedy completion, and finally, the questionnaire was returned to the researcher at the right time. A period of one week was used for the distribution and retrieval of the instrument.

### **3.7 Procedure for Data Analysis**

Descriptive statistics in the form of frequency count, simple percentage, and mean were used to analyze the data relating to the research questions raised for this study. 50% response and a 1.3 mean score were used as benchmarks for decision-making; anything less than that is considered negative.

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## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND DISCUSSION

#### 4.1 Introduction

In this chapter, the data collected for the study is presented, along with an analysis and discussion of the findings.

#### 4.2 Response Rate

#### 4.3 Data Presentation, Analysis and Discussion

#### 4.2 Response Rate of Academics in Arabic Department

**Table 4.1** Response Rate

Institution	Department	Questionnaire Distributed	Questionnaire Returned
FCE Zaria	Arabic	29	28
Percentages		100%	96.6%

Out of the 29 copies of the questionnaire administered to the respondents, a total of 28 (96.5%) were returned duly completed and found usable for analysis. The high response rate was realized because the research assistants used were the heads of the department and lecturers in the F.C.E. Zaria. It could also be attributed to the fact that the respondents were given up to one week within which to complete and return the copies of the questionnaires.

### **4.3 Data Presentation, Analysis and Discussion**

This section analyzes the data collected for the study, followed by discussion. The data was analyzed descriptively based on the research questions raised for the study.

#### **4.3.1 Types of Search Skills Possessed by Arabic Academics for Retrieval of online Information Resources in FCE Zaria**

The first research question was aimed at identifying the various types of Search skills possessed by Arabic academics for the Retrieval of online Information resources in the Federal College of Education, Zaria. In order to achieve this objective, a list of search skills possessed by Arabic academics was outlined for the respondents to tick off as many as possible.

**Table 4.3.1 Type of Search Skills Employ for Retrieval of online Information Resources**

Type of search skills	Freq	%	Mean
Ability to think before search	28	100%	2.5
Ability to keep it simple	15	53.6%	1.3
Ability to narrow search results	12	42.9%	1.0
Ability to use punctuations	0	00%	0.0
Ability to apply filters	0	00%	0.0
Ability to search by Author	25	89.3%	2.3
Ability to search specific site	26	92.9%	2.4
Ability to search by Subject	13	46.4%	1.2
Ability to search by standard number	0	00%	0.0
Ability to search by Title	5	17.9%	0.5
Ability to search by keyword	25	89.3%	2.3



In Table 4.3.1 above, it was discovered that ability to think before searching was the type of search skill possessed by Arabic academics, with the highest response of 96.4% and the mean value of (2.5), while ability to search specific sites had a percentage of 92.9% and the mean value of (2.4), followed by ability to search by author with a percentage of 89.3% and the mean value of (2.3), and ability to search by keyword with a percentage of 89.3% and the mean value of (2.3) responses scores by the academics in FCE Zaria, Whereas ability to narrow search results were the types of search skills possessed by Arabic academics for retrieval of information resources with the lowest percentage of less than 42.9% and the mean value of (1.0) responses scores, respectively.

However, a further observation from the table indicated above indicates that the ability to use punctuation, the ability to apply filters, and the ability to search by standard number were completely unknown or do not matter to them. This may be connected to the fact that the majority of Arabic academics may not consider online resources as sources of information for their academic activities. The above finding is not surprising because, on the one hand, today's information provides a vast amount of resources to support academic activities, but they are underutilized due to poor knowledge of the different types of search skills. This finding is supported by that of Kinengyere (2007), who found out that the availability of information does not necessarily mean actual use because the academician may not be aware of the availability of online information resources and may not know how to access these resources.

### 4.3.2 Types of Search Strategies Used for Retrieval of online Information Resources in FCE

#### Zaria

The second research question of the study was to identify the various types of Search strategies used by Arabic academics at FCE Zaria for retrieving information resources. The respondents were given a list of Search strategies to tick as many options as applicable to accomplish this objective. Below are Table 4.5, showing the types of search strategies.

**Table 4.3.2 Type of Search Strategy Used for Retrieval of online Information Resources among Arabic Academics in FCE Zaria**

Type of Search strategy	Freq.	%	Mean
Use of Boolean operators	0	00%	0.0
Use of truncation	0	00%	0.0
Use of search engine	27	96.4%	3.4
Use of proximity search	0	00%	0.0
Use of field search	24	85.7%	3.0
Use of parenthesis	4	14.3%	0.5
Use of wildcards	0	00%	0.0

The findings in Table 4.3.2 above revealed that use of search engines was the type of Search strategy used for retrieval of information resources, with the highest percentage of over 96.4% and a mean value of (3.4). This is followed by field search with 85.7% and a mean value of 3.0. Moreover, the ability to use parenthesis earned the lowest percentage of less than 14.3% and a mean value of (0.5).

Additionally, it was observed in the table that Arabic academics did not use boolean operators, truncation, proximity search, and wildcards. This may be connected to the fact that the majority of Arabic academics may not be vast in terms of search strategies to employ when searching for information for their teaching and learning activities. The aforementioned findings are not surprising because, on the other hand, information overload provides a great number of resources to support academic pursuits, but they are underutilized due to poor knowledge of the different types of Search strategies. This is in contradiction with the study of Life Pacific University (2019), where they discovered "seven most frequently used online searching techniques, including Boolean Searching, Phrase Searching, Proximity Searching, Field Searching, Truncation, Parenthesis, and Synonyms, which are also used by their academics.

### **4.3.3 Means of Accessing Online Information for Retrieval of online Information Resources by Arabic Academics in FCE Zaria**

This research questions sought to find out means of accessing online information resources by the respondents. In order to achieve this objective, a list of options was provided for the respondents to indicate as many relevant options as possible, as shown in Table 4.6 below.

**Table 4.3.3 Means of Accessing Online Information for Retrieval of Information Resources by Arabic Academics in FCE Zaria.**

Means of accessing online information for retrieval of online information resources by Arabic academics in FCE Zaria.	Freq	%	Mean
Using Internet (LAN or wireless)	6	21.4%	1.0
Using GSM Network	21	75.0%	3.5
Using Internet Café	10	35.7%	1.6
Using Modem	16	57.1%	2.6
Through library website	0	00%	0.0
Using Search Engines	19	67.9%	3.2

The findings in Table 4.3.3 revealed that using GSM networks was the means of accessing online information with the highest percentage of 75.0% and a mean value of (3.5). This was followed by search engines with 67.9% and a mean value of (3.2), whereas personal modems were used with 57.2% and a mean value of (2.6). Furthermore, using Internet cafés was also another means of accessing online information, with a percentage of 35.8% and a mean value of (1.6), whereas Internet (LAN or wireless) obtained the least percentage of 21.4% and a mean value of (1.0) responses, respectively.

This is due to a lack of Internet connectivity in their offices and poor ICT facilities. While the library website is completely nonexistent. However, a further observation from the table above indicated that the study went further to discover that the college library website is not put in place to serve the entire college with the vast information resources they need. This finding is supported by the earlier finding of Hamza (2014) report that academics access and use online Arabic information resources available. The study also revealed that the respondents indicated smart phone (GSM) connectivity and personal modem as the means of accessing online Arabic information resources at Bayero University. Due to a lack of Internet connectivity in their respective offices, the respondents access online Arabic information resources through Google search engines and other online mediums instead of searching through available online library databases.

#### **4.3.4 Purposes of Utilizing Online Information Resource for Retrieval of Information Resources among Arabic Academics**

The researcher further sought to find out the purposes of utilizing online information resource retrieval for information resources among Arabic academics. In order to obtain answers to the questions, the respondents were asked to indicate their purposes of using online information resource retrieval for information resources in their college as outline in the table below

**Table 4.3.4 Purposes of Utilizing Online Information Resource for Retrieval of online information Resources among Arabic Academics (Tick as many as possible)**

Purpose of accessing and utilizing online information resources	Freq	%	Mean
For literature search	24	85.7%	2.7
For Research purposes	25	89.3%	2.8
For Paper writing & publication	26	92.9%	2.9
For Teaching	23	82.2%	2.6
For ease of use	12	42.9%	1.3
For Self-development	24	85.8%	2.8
For conveniences	5	17.9%	0.5
For Community development	6	21.5%	0.7
For Thesis/ Dissertation writing	19	67.86%	2.1

The findings in Table 4.3.4 above revealed the responses of the respondents on the reasons and purposes for utilizing online information resources for the retrieval of information resources among Arabic academics, as it can be seen that research activities, paper writing, and publication were the major reasons for utilizing online information resources, with the highest percentage of 92.9% and a mean value of 2.9, followed by research purposes with 89.3% and a mean score of 2.8, respectively. Furthermore, literature searches, self-development, and teaching were also indicated as reasons for utilizing online specialty information resources by the Arabic academics. However, this finding showed that the majority of the respondents in FCE Zaria were using online information resources purposefully for paper writing and publication and for research purposes. This finding corroborates the finding of Talhami (2015), who reports that Arabic databases are used for research purposes; about one-quarter to one-third use them to prepare lectures and gain subject knowledge. In another finding by Obaje and Camble (2019), they report that library databases are mostly used for literature searches during project/dissertation and thesis writing as well as personal research by staff. Similarly, Ansari and Zuberi (2022) report that about one-third of respondents use electronic resources for research. About one-quarter (89.4%) use it to prepare lectures, and 24.8% use it to gain subject knowledge.

#### **4.3.5 What Challenges do Arabic Academics in FCE Zaria Face while Searching online Information Resources?**

The last research question seeks to identify the challenges faced by Arabic academics in accessing and utilizing online information resources for the retrieval of online information resources. In order to achieve this objective, the respondents were asked to indicate the

challenges they faced in accessing and utilizing online information resources in FCE Zaria, as outlined in Table 4.3.5

**Table 4.3.5 Challenges Faced by the Respondents Arabic Academics of FCE Zaria Encounter in Accessing and Utilizing the Online Information Resource**

Challenges encounter in accessing and utilizing the online information resource by the Arabic academics			
	Freq	%	Mean
Inadequate search skills	27	96.5%	2.7
Slow Internet connectivity	25	89.3%	2.5
Erratic power supply	26	92.9%	2.6
Poor ICTs facilities	24	85.8%	2.4
Lack of access to Internet connectivity	23	82.2%	2.3
Insufficient access to needed journals	26	92.9%	2.6
information overload	25	89.3%	2.5
Technophobia	22	78.6%	2.2
lack of printing facilities	21	75.0%	2.1
difficulty while browsing	26	92.9%	2.6



From Table 4.3.5 above, the findings show that inadequate search skills were the challenges faced by Arab academics when accessing and utilizing information resources, with a percentage of 96.5% and a mean value of 2.7, while erratic power supply, insufficient access to needed journals, and difficulty while browsing obtained a the same response rate of 92.9% and a mean value of 2.6. Slow Internet connectivity and information overload were also the among the challenges faced in accessing and utilizing information resources, with a percentage of 89.3% and a mean score of 2.5 responses, respectively. Similarly, poor ICT facilities were also form part of the challenges faced by respondents, with a percentage of 85.8% and a mean value of (2.4), while lack of access to Internet connectivity in the offices had 82.2% and a mean value of (2.3). The prevalence of these challenges was also reported in similar studies by Kefas and Gilbert (2015), who indicated that irrelevant information, power outages, issues of network or slow internet connectivity, the need to filter the search due information overload, and inadequate search skills were the major challenges. This findings was corroborated further by Abdurrahman (2008), who reported similar constraints such as, erratic power supply, networking, and availability of equipment, among others.

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## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter provides a summary of the study under the following sub-headings:

5.2 Summary of the Study

5.3 Summary of the Findings

5.4 Contribution to Knowledge

5.5 Limitations of the Study

5.6 Conclusion

5.7 Recommendations

5.8 Suggestions for Further Studies

#### **5.2 Summary of the Study**

This study was carried out to investigate the utilization of Search skills for the retrieval of online information resources among Arabic academics at the Federal College of Education, Zaria. To achieve this objective, five research questions were raised and answered.

Chapter two focused on a review of related literature, which was done in line with the trust of the study under the following subheadings: concepts of Search skills, types of Search skills possessed by academics, Search strategies, access to online information resources, the

purpose of utilizing online information resources, and challenges faced in searching for online information resources. The chapter also provided an empirical review of the existing literature.

Chapter three covered the research methodology, where quantitative research methodology was used, and a case study research design. The population of the study was made up of 29 Arabic academics at FCE Zaria. The instrument used to generate the data needed to answer the research questions was the questionnaire.

Chapter four further presents the analysis and discusses the result of the study, which was done descriptively using frequency distributions, simple percentages, and the mean.

### **5.3 Summary of the Findings**

Based on the data collected and analyzed for this study, the following is a summary of the major findings:

1. The finding indicated that the types of Search skills possessed by Arabic academics in the Federal College of Education, Zaria, were the ability to think before searching, the ability to search a specific site, the ability to search by author, the ability to search by keyword, and the ability to keep it simple.
2. The types of Search strategies used for retrieval of online information resources by Arabic academics in Federal College of Education Zaria were search engines, field search and phrase searching.
3. The findings indicated a GSM network, using modems, and using search engines as the means of accessing information resources by Arabic academics at FCE, Zaria.

4. The majority of Arabic academics utilize information resources for research purposes, paper publication, teaching, and thesis and dissertation writing.
5. The challenges faced by Arabic academics in accessing and utilizing information resources are inadequate search strategies, slow Internet connectivity in the college, erratic power supply, insufficient access to needed journals, poor ICT facilities, and a lack of Internet connectivity in the offices. Information overload, technophobia, a lack of printing facilities, and difficulty while browsing was also reported as the major challenges faced in accessing and utilizing information resources.

#### **5.4 Contribution to Knowledge**

Based on the findings of this study, it was established that:

1. This study has identified and encompasses several search skills that work together to allow individuals to locate where information is, access, evaluate, utilize, and interpret information regardless of its types and format, and come to viable solutions, which are discovered with the views on how to address them to Arabic academics in the Federal College of Education, Zaria.
2. This study also comes up with various challenges faced by Arabic academics in accessing and utilizing information resources and the way forward in addressing such challenges, as outlined in the study's recommendations.

#### **5.5 Limitations of the Study**

The limitation encountered by the researcher in the course of this research work is the financial constraints, which were the challenge faced in carrying out the study. Also, the

researcher faced some challenges in having access to some materials for the literature review due to the 8-month strike by the Academic Staff Union of Universities (ASUU), and the risk of moving on the road to distribute the questionnaires was challenging too.

## **5.6 Conclusion**

Based on the findings of this study, it could be concluded that the majority of Arabic academics in FCE Zaria were not accessing and utilizing available information resources due to a lack of Search skills and search strategies. This could be necessitated due to the lack of information literacy skills and problems associated with the current trend of ICT gadgets. Therefore, they need training on how to access and make use of the available online information resources with different search skills and search strategies. To compete in the 21st-century library market, the college should adopt global best practices and immediately create the college library website. This will enhance the college's teaching and research operations. If all Arabic academics were trained on how to access and adopt search skills and search strategies on the information resources available, there would be a high level of online access and usage, higher quality teaching and research activities, and above all, high levels of satisfaction with the information resources among Arabic academics at FCE Zaria.

## **5.7 Recommendations**

Based on the findings of this study, the following recommendations were made:

1. The Federal College of Education Zaria College library should take a leading role in creating more training programs among Arabic academics on online information searches skills such as the ability to narrow the search, ability to use punctuation, ability to apply

filters, ability to search by subject, ability to search by standard number, and ability to search by title.

2. The College Library should organize workshops for Arabic academics on how to effectively search information resources with different types of Search strategies such as Boolean operators, truncation, proximity search, parenthesis, and wildcards.
3. The Federal College of Education management should create a college library website and link it to different databases; both open access and subscribed, to be among the 21st-century libraries. This will enhance the college's teaching and research operations. Furthermore, the college should provide internet connectivity (LAN or wireless) to each lecturer's office to enable the library to provide online services to them from the comfort of their offices.
4. More awareness should be created about accessing and utilizing information resources for Arabic academics and other researchers at the Federal College of Education in Zaria.
5. The college should make provision to provide a regular power generation plant to complement the erratic power supply bedeviling the college. Furthermore, the college management should provide enough ICT fertile ground with the supply of information resources.

### **5.8 Suggestions for Further Studies**

1. Adoption of a digital information system for scholarly communication in the federal college of Education, Zaria.
2. Design and implementation of an online Arabic information system for accessing digital information in the Federal College of Education in Zaria





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## Appendix I



### DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA



**Vice Chancellor: Professor Ibrahim Garba**, B.Sc. (Hons) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS

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**P17EDLS8213**

4<sup>th</sup> March, 2020

The Head,  
Department of Arabic & Islamic Studies,  
School of Languages,  
Federal College of Education,  
Zaria.

Dear Sir,

#### **INTRODUCTORY LETTER: IBRAHIM SAIDU**

This is to certify that IBRAHIM SAIDU with Registration Number **P17EDLS8213** is a Postgraduate Student in this Department. He is currently engaged in a research titled "**Utilization of online Information Search Skills for Retrieval of Specialized Information Resources among Arabic and Islamic Studies Academics of FCE, Zaria**".

We would be grateful if you could kindly give him the assistance he requires for conducting the research work successfully.

Thanks for your cooperation.

Yours sincerely,

**Dr. Habibu Mohammed**  
**Head of Department**

## Appendix II

Department of Library and Information,  
Faculty of Education,  
Ahmadu Bello University, Zaria.

15<sup>th</sup> Feb, 2022.

Dear respondent,

### **REQUEST FOR COMPLETION OF QUESTIONNAIRE**

I am a postgraduate student of the above department, and I am conducting research on “Utilization of Search skills for retrieval of online information resources among Arabic academics of the Federal College of Education Zaria”. You are kindly requested to provide the required information for the research; your responses will help the researcher collect data for analysis.

This research is essentially for academic purposes. You are one of the selected respondents in your department for this exercise. Kindly assist in responding to the questions in this questionnaire.

All the information given will be used strictly for research purposes only.

Thank you for your anticipated cooperation.

Yours sincerely,

Ibrahim Saidu  
P17EDLS8213

**SECTION A: Types of Search skills possessed by Arabic academics for retrieval of online information resources in FCE Zaria.**

**4. What type of Search skills employ for retrieval of online information resources?**

- a. Ability to think before search [  ]
- b. Ability to keep it simple [  ]
- c. Ability to narrow search results [  ]
- d. Ability to use punctuations [  ]
- e. Ability to apply filters [  ]
- f. Ability to search by Author [  ]
- g. Ability to search specific site [  ]
- h. Ability to search by Subject [  ]
- i. Ability to search by standard number [  ]
- j. Ability to search by Title [  ]
- k. Ability to search by Keyword [  ]
- l. Others please (specify).....

**SECTION C: Type of Search strategy used for Retrieval of online Information resources?**

**6. What type of Search strategy used for Retrieval of online Information resources?**

- a. Use of Boolean operators [  ]
- b. Use of truncation [  ]
- c. Use of search engine [  ]
- d. Use of proximity search [  ]
- e. Use of field search [  ]
- f. Use of parenthesis [  ]

g. Use of wildcards [ ]

h. Use of phrase searching [ ]

i. Others specify.....

**SECTION D: 3- What means do Arabic academics access online information for Retrieval of online Information resources in FCE Zaria**

**7. Which of the followings are the means of accessing online information for information resources?**

(Please Tick the relevant options)

a. Using Internet (LAN or wireless) [ ]

b. Using GSM Network [ ]

c. Using Internet Café [ ]

d. Using Modem [ ]

e. Through library website [ ]

f. Using Search Engines [ ]

g. Others specify.....

**SECTION E: Purposes of utilizing online information resource retrieval for information resources among Arabic academics**

**15. For what purpose do Arabic academics in FCE Zaria utilize online information resources?**

(Tick as many as possible)

a. For literature search [ ]

b. For Research purposes [ ]

c. For Paper writing & publication [ ]



- d. For Teaching [ ]
- e. For ease of use [ ]
- f. For Self-development [ ]
- g. For conveniences [ ]
- h. For Community development [ ]
- i. For Thesis/ Dissertation writing [ ]
- j. Others specify.....

**SECTION F: What challenges do Arabic academics in FCE Zaria face while searching information resources?**

**15. Indicate the challenges you do encounter while accessing and utilizing the information resource?**

(Please Tick the relevant options)

- a. Inadequate search strategies [ ]
- b. Slow Internet connectivity [ ]
- c. Erratic power supply [ ]
- d. Poor ICTs facilities [ ]
- e. Lack of access to Internet connectivity [ ]
- f. Insufficient access to needed journals [ ]
- g. information overload [ ]
- h. Technophobia [ ]
- I. lack of printing facilities [ ]
- g. difficulty while browsing [ ]
- Others please specify.....

### Appendix III

Reliability test result of the pilot study conducted in college of education Gidan  
Waya Kafancen Kaduna State

$$2. \quad ppmc = t = \frac{\sum(x-x)(y-y)}{\sqrt{\sum(x-x)^2 \sum(y-y)^2}}$$

3.

$\alpha$	y	x-x	y-y	(x-x)(y-y)	(x-x) <sup>2</sup>	(y-y) <sup>2</sup>
8	7	1.3	-1.5	-1.8	1.7	2.3
6	10	-1.3	1.5	-1.9	1.7	2.3
8	0	1.3		0	1.7	
				3.7	5.1	5.1

This result was

$$x = 8 + 6 + 8 = \frac{22}{3} = 7.3$$

$$y = 7 + 10 = \frac{17}{2} = 8.5$$

$$r = \frac{3.7}{\sqrt{5.1 \times 4.6}} = r = \frac{3.7}{\sqrt{23.5}} = \frac{3.7}{4.8}$$

$$r = 0.7$$

$$r = \frac{2r}{1+r}$$

$$= \frac{2 \times 0.7}{1 + 0.7} = \frac{1.4}{1.7}$$

$$= 0.86$$