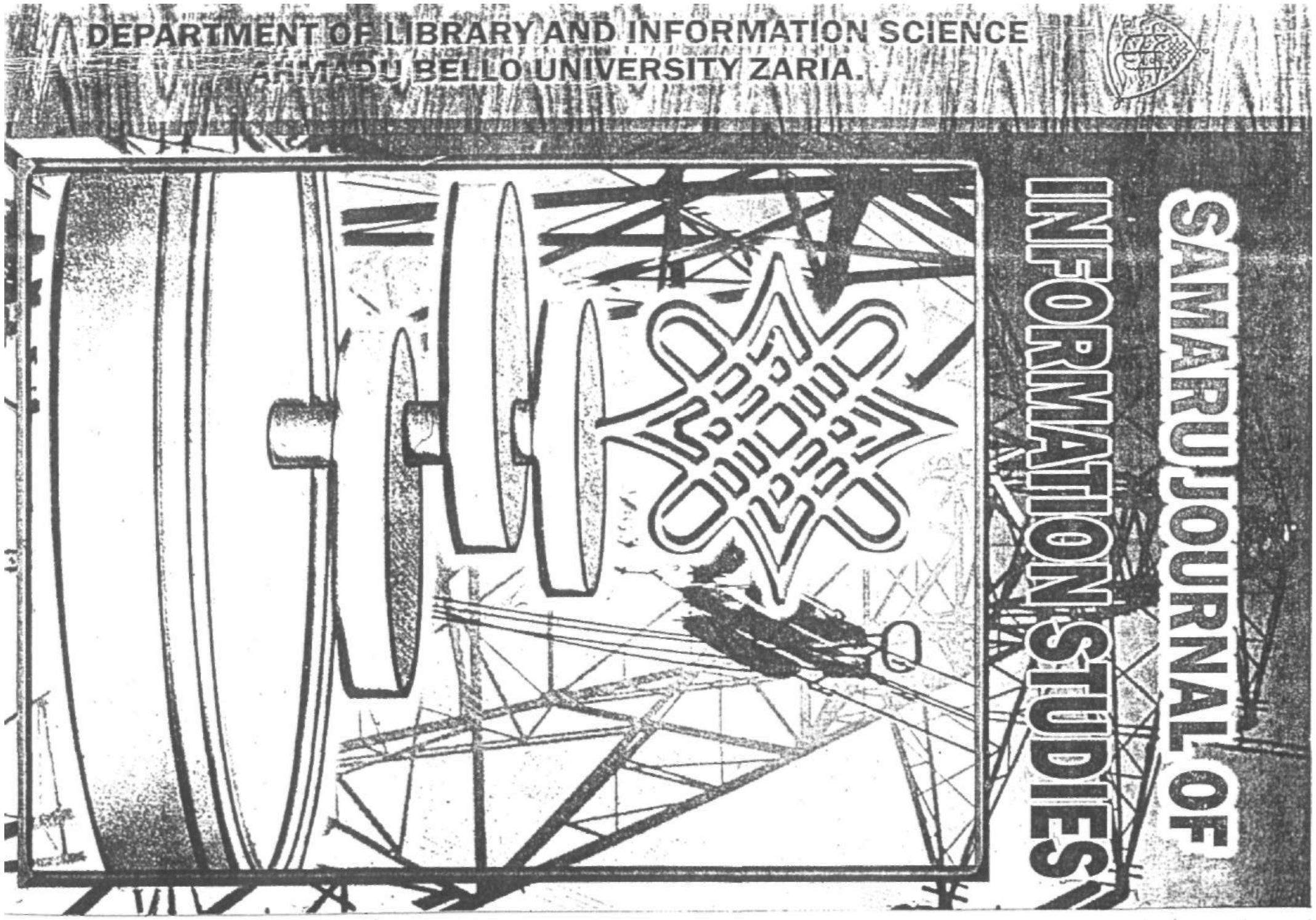
DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE
AHMADU BELLO UNIVERSITY ZARIA.



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EDITORIAL NOTE

The vision and mission of the Samaru Journal of Information Studies is to serve as a veritable forum for disseminating scholarly inter-disciplinary contributions to knowledge particularly in form of original research findings and creative analysis of practical experiences and significant issues arising from work environments, socio-economic, political and cultural relations; education; management; science and technology, information and communication.

The journal's position in this respect is based on the fact that the art of informing and communicating as well as information and communication systems and services have no boundaries.

It is in the light of the above that this maiden edition has accommodated and indeed the subsequent editions/issues will also accommodate contributions that cut across subject disciplines and more especially in information and communication technology applications. Thus, contributions in this like manner are welcome especially those within the paradigm of information and communication so that the journal will live up to expectation in the knowledge management dispensations.

Zakari Mohammed, Ph.D., MNIM
Editor-in-Chief

Contents

Editorial Note iii

Articles

An Algorithm for the Combination of GPS and Local Mapping Coordinates in Nigeria 1
Ahmed Musa (Ph.D)

A Study Of Reference And Information Inquiries And Wait-Time In Nigerian University Libraries 16
Umar Ibrahim (Ph.D)

Search room Services In Records And Archives Management 23
Baba Shaibu Aduku

The Book Industry In National Development: Nigerian Perspectives 27
Zakari Mohammed

Information Resources in the Federal University Libraries of Nigeria And the World Bank Loan 35
Tijjani Abubakar (Ph.D.)

Issues In The Education Of Women In Nigeria 42
Aisha Z. Mohammed (Ph.D.)

The Nigerian University Student and the Digital Future 45
John Otim.

Towards Effective Internet Searching 48
Gbaje, Ezra Shiloba

Access To Information By Retailers In Northern States Of Nigeria: An *Empirical Investigation.* 51
Abdullahi Musa Ibrahim

Cover design By Joseph Izang Azi

A STUDY OF REFERENCE AND INFORMATION INQUIRIES AND WAIT-TIME IN NIGERIAN UNIVERSITY LIBRARIES

UMAR IBRAHIM

Abstract

The study investigated reference and information inquiries made by Students in the Nigerian University Libraries. The time it takes reference staff to provide answers to the different categories of reference and information inquiries was measured.

Query Analysis Worksheet and Stopwatch were the instruments used to collect data from 403 and 289 sampled Postgraduate, Undergraduate Students from five selected Nigerian University Libraries. The data collected tested the hypotheses that there is no significant difference between Undergraduate and Postgraduate Students in the frequency of use of the different categories of Reference and Information Inquiries, and there is no significant deference in the mean wait-time of the responses to the different categories of Reference and Information Inquiries made by Students.

The analysis shows that significant differences exist between Undergraduate and Postgraduate Students in the frequency of use of the different categories of Reference and Information Inquiries. Undergraduate Students tend to ask more of Ready Reference and Information Inquiries, with a score of 1368 (47.32%). While Postgraduate Students seek more of Information on Research 202 (49:87%) and Information on Specific Topics 114 (28:14%) reference and information inquiries. Differences also do exist in the mean wait-time of the responses to the different categories of Reference and Information Inquiries made by the Students. DI, RR, IST and IR reference and information inquiries recorded mean wait-time of 2, 7, 12 and 18 minutes respectively.

The study concluded that Reference and Information Service provision in Nigerian University Libraries is still in passive from. Lack of Library Orientations and Library Instructions, qualified Reference staff, adequate and varied Reference and Information Services have been identified as among the factors that are contributing to the passive nature of Reference and Information Service provision in Nigerian University Libraries.

Introduction

The provision of reference and information services to patron is generally accepted as one of the fundamental objectives of the library. Librarians themselves see it as the keystone of professional practice. They describe it as the *raison detre* of the whole of Library work.

Reference and Information service is broadly divided into three areas: library instruction, which involves the teaching of patrons on how to use the library and it's resources; the Bibliographical Services, such as Indexing, Abstracting, Press cutting, e.t.c. ; and Information Services, which includes Inquiry-answer service, Current Awareness Services (CAS), Selective Dissemination of Information (SDI), e.t.c.

Powell (1984:24) observes that all the above reference and information services kicks up with an inquiry and that inquiry form the vast majority of reference transactions. Thus Jackaman (1989:63) opined that the primary concern of Reference and Information Service is just in answering questions asked by the Library's Patron. Davidson (1980:6) concludes that the measure of success of reference work is the proper answer.

The process of identifying and answering reference and information inquiries is very complex. This is why Katz (1980:12) aptly notes that half the battle in reference and information work is to discover exactly what a reader really wants. In view of this Katz (1974:56) provides a four-category analysis of the ways in which Reference and Information Inquiries are made in libraries. The analysis shows a hierarchy of complexity from the very simple and straight forward Reference and Information Inquiries which can be dealt with in very little time, to the more demanding inquiries which in both require the Librarian's expertise and time in dealing with them.

The four categories of inquiries provided by Katz and his associates are (1) Directional Information (DI), (2) Ready Reference (RR), (3) Information on Specific Search or Topic (IST), and (4) Information on Research (IR). "Directional inquiries" has been described as those, which the Reference Librarian is asked simply for directions, or such inquiries that require simple 'Yes' or 'No' answers. The "Ready

Reference Inquiries" (or "quick reference') are those, which the Reference Librarian may need to consult only one source to provide the required answer. The Information on Specific Search inquiries are those, which are clearly understood without too much discussion and the sources required for the answers, are obvious and fairly elementary. However the Librarian may need to consult several sources in order to ensure complete satisfaction of the User 's need.

The Information on Research inquiries are those requiring extended searches, perhaps over several days, using several sources and possibly involving a number of library Staff. The marshalling of facts and figures from a wide range of sources put together possibly to write quite extensive background notes and explanations on the issue and probably also to borrow materials from other Libraries and/or make a number of telephone calls or visit to seek for advice or assistance from other Libraries, are some of the features of this type of inquiry.

Attempt to find out the categorization of Reference and Information Inquiries made by Users is very important to the provision of Reference and Information Services. It is in this view that Afolabi (1996:25) notes that knowledge of the different types of Reference and Information Inquiries made by Users and searching process is of particular interest to those attempting to increase the speed and efficiency of Reference and Information Service. Much earlier, Papazian (1965:7) suggested that if we could gain some insight into the nature of Inquiries, the potential for improvement of human searching procedures would be unlimited

Wait-Time

Time is very significant in any retrieval system including Library and Information retrieval systems. In fact Information retrieval systems are measured by their speed, accuracy and consistency. 'Wait-time' is mostly associated with classroom activities. Rowe (1969) defines it as the length of pauses between a teacher's question and a pupil's response or between that response and the teacher's subsequent reaction. Since the concept of Wait-time is related to questioning and questions form the basis of reference transactions. This researcher has borrowed the concept and applied it to the study of Reference and Information Services in Nigerian University Libraries.

From the perspective of Reference and Information Service therefore, Wait-time can be defined as the time between when a Reference Inquirer asks question and when the Reference Librarian provides the answer, or between when reference answer is provided to inquirer and the subsequent Reference Librarian's reactions. In other words, Wait-time can be seen as the length of times a reference and information inquirer had to wait for a reply to his/her inquiry.

Many scholars including Rowe, (1969) (1974), Morber (1971), etc have strongly agreed that Wait-time appears to be a relatively powerful teaching techniques which could determine the quality and quantity of a child's discourse that occurs in science lesson. In the same vain Wait-time can be a strong Reference and Information Service technique aimed at determining the capacity of a Reference Librarian in satisfying the Information need of the Library User.

It is therefore in the light of the above discussions that this research work set out to investigate the kinds of reference and information inquiries that Nigerian University Students make. The study will also measure the length of time taken by reference Librarian to provide answers to each category of reference and information inquiries. This study is necessary because, Alafiatayo (1977:20) has, in his study postulated that Personnel, Type of reference and information inquiries and Time among other identifiable factors influence the type of Reference and Information Services provision in University Libraries in Nigeria. He concludes that these might have accounted for the passive nature of Reference and Information Services provision in Nigerian University Libraries. Similarly, Nwoye and Anafulu (1973:251) note that effective means of stimulating the use of Reference and Information Services provision have not fully developed in Nigerian University Libraries.

Therefore, this study is significant in the sense that knowledge on Users' question pattern and the speed at which Reference and Information Inquiries are answered are very necessary if the speed, effectiveness and efficiency of Reference and Information Services provision is to be improved in Nigerian University Libraries.

The study sought to provide answers to the following questions.

1. What categories of Reference and Information Inquiries do Students make at the Reference Desks?

2. What is the mean watt-time of answers provided for the different categories of Reference and Inforanation Inquiries made by Students at the reference desk?

Following the above stated research questions, the hypotheses below were formulated and tested.

The study was based on the following hypothesis:

1. There is no significant difference between Undergraduate and Postgraduate Students in the frequency of use of the different categories of Reference and Information Inquiries.
2. There is no significant difference in the mean wait-time of the responses to the different categories of Reference and Information Inquiries made by Students.

The methodology adopted for this research is survey method. A number of academic libraries in Nigeria were surveyed in order to determine the kind of inquiries that students ask at the reference desks and the length of time they would have to wait for answers to each category. The unit of analysis (events) in the survey was the activities of the Reference Desk. The population of this study comprises of all the tyenty-five Federal University libraries. All these Universities have well-developed Libraries. All the Undergraduate and Postgraduate students using the resources of the Reference divisions form the subjects of the study.

Convenient sampling method (i.e. purposive or judgment sampling) was used to draw a sample of five Federal University Libraries, representing about 20% of the population was selected. The entire five samples were selected from the northern states of Nigeria. This is because of the fact that the researcher had to participate physically in the observation and Collection of data. The fact that the researcher had to spend at least five days in each Library collecting data, demands that sample should be conveniently selected so as to allow him spend these days or even more comfortably without rush.

Stratified sampling procedure was used to select sample from the student. A total number of 1592 Postgraduate and 15, 808 Undergraduate Students have been found to be the Users of these selected Reference Sections of the Five selected University Libraries (solicited records from the University Libraries). Out of these numbers 403 and 2893 Postgraduates and Undergraduate Students were randomly selected for the study. This brings the total number of Students selected to 3296. This number was found to be adequate because apart from representing 20% of the total population, the sample size will give a reasonably good estimate of the true percentages in various categories of reference desk variables. The sample size is also big enough to allow the researcher discuss the findings and make generations.

Data for this study was collected using Questionnaire and Query Analysis Worksheet and Stopwatch when the semester was in full session. This is because as observed by Van-House, Wail and McClure (1990:98) the period during which data is collected will determine ones result. So, the simplest solution they suggest is to pick a reasonable representative time period that is, a busy time but not during periods of unusual activities.

Although the validity and reliability of the Query Analysis Worksheets have long been tested and found both valid and reliable in a number of studies, such as Orgren and Olson's (1976) statewide Teletype Reference and Information Service. As a result of which this, query analysis form is in use in a number of libraries to collect Reference statistics. No objection has been raised on the form, only that most researchers submit that the items on the forms are not immutable. If any is inappropriate for a given Library or study, it can simply be dropped, or replaced with something more suitable.

The Query Analysis Worksheet was used to collect data on the type of Reference and Information Inquiries, status of Inquirers, wait-time, etc. Part of this Section, such as types of Reference and Information Inquiries, sources used in answering inquiry, status of Reference staff providing answers to the Reference and Information Inquiries, etc was filled by Reference staff and part, specifically the recording of wait-time was done by the researcher and research assistants.

Most of the Reference transactions throughout the period of data Collection were tape recorded. The essence for this was to further validate the information collected through the query Analysis Worksheet. Mistakes committed during the physical recordings on the Query Analysis Worksheet were crosschecked by replaying the tape-recorded conversations.

Data collected from the research instruments was analyzed using some statistical techniques. Generally, percentage distribution, ranking distribution and other descriptive statistics were used to analyze some

of the findings of the study. The chi-square (X^2) test for independent sample was used to test the first hypothesis while ANOVA was used to test the second hypothesis.

The aim of the first stated hypothesis is to find out whether differences exist between Postgraduate and Undergraduate Students in the frequency of use of the different categories of Reference and Information Inquiries they make. To test this hypothesis, the Chi-square statistical method was employed and the result is shown in Table 1 below

Table 1: Chi-Square Test On The Difference Between Undergraduate And Postgraduate Students In The Frequency Of Use Of The Different Categories Of Their Inquiries

Status of Patrons	Types Of Reference And Information Inquiries				
	RR	I T	DI	I R	TOTAL
Undergraduates	1368	492	554	479	2893
	47.32	16.9	19.2	16.6	87.7
	96.0	81.1	94.5	70.3	
	41.5	14.9	16.8	14.5	
Postgraduates	57	114	30	202	403
	14.1	28.1	7.9	49.9	12.3
	4.0	18.9	5.5	29.7	
	1.7	3.5	1.0	6.1	
TOTAL	1425	604	586	681	3296
	43.2	18.3	17.8	20.7	100.00

X^2 Calculated = 331.209, Df = 3, X^2 Critical = 7.82.

Key:
RR =Ready Reference, IST = Information on Specific topic, DI = Directional Information and IR = Information on Research

From Table 1 above, the hypothesis that there is no significant difference between Undergraduate and Postgraduate Students in the frequency of use of the different categories of Reference and Information Inquiries is rejected since X^2 Calculated is 331.209, exceeds X^2 critical 7.82 at 0.05 level. Hence, it could be concluded that significant differences exist between Postgraduate and Undergraduate student in the frequency of use of the categorized Reference and Information Inquiries.

Discussion

The data presented in table 1is therefore an attempt to gain some insight into the types of Reference and Information Inquiries most frequently asked by Undergraduate and Postgraduate Students in the Nigerian University Libraries. Contrary to the assertion made by Goetsch (1995:16) that the majority of the questions asked are of a directional or known item nature. This study clearly reveals that Undergraduate Students tend to ask more of Ready Reference and Information Inquiries, with a score of 1368 (47.32%) than any other type of Inquiries. Directional Inquiries with 554 (19.16%) scores and Information on Specific Topic with 490 (16.95%) scores follow this. Information on Research type of inquiry receives the lowest attention among the Undergraduate Students with 479 (16.57%) scores.

The reason why Information on Research type of Inquiry recorded the lowest among Undergraduate Students could be due to the fact that they, especially the lower levels are really hardly subjected to rigorous researches. The above figure recorded by this type of Inquiry could actually be traced to Undergraduate Students, especially those at the higher levels, who are usually involved in writing term papers and final year projects. The Directional type of Inquiry which takes the second position among Undergraduate Students, could be due to the fact that 100 level and 200 level Students who are newly admitted may not know how to use the Library and its resources. They tend to always ask for directions before they start to master the Library. Indeed! Data collected shows that Directional Inquiries are mostly asked by 100 levels and 200 level Students.

Interestingly, the Postgraduate Students seek more Information on Research and Information on Specific Topics than Ready Reference and Directional types of Reference and Information Inquiries. Information

on Research had the highest score of 202 (49.87%), followed by Information on Specific Topics 114 (28.14%). The two accounts for 3/4, i.e. 316(78.02%) of all the inquiries made by the Postgraduate Students.

The fact that 78% of the Postgraduate Students seek for Information on Research and Information on Specific Topic does not seem an unusual percentage because they are always involved in rigorous researches to write seminars, tutorials, assignments or final year Theses and Dissertations. Because the Postgraduate Students might likely be familiar with the Library or similar other Libraries during their Undergraduate days made Directional type of Inquiry insignificant to them with only 7.90% scores.

Collectively, a look at table 1 above shows that Ready Reference type of Inquiries records the highest scores between both Undergraduate and Postgraduate Students with 1425(43.25%) scores. This accounts for almost half of the inquiries asked by the Users. This finding is similar to Katz's (1980:13) when he discovered that Ready Reference type of Inquiry constitute a large proportion (30 -40%) of all Reference queries.

The above findings of Katz is not surprising because, as Whitson (1995:106) argues, Ready Reference or what he prefer to call "Information look up" is still seen by many Reference staff as including general information, technical assistance, and even quick research consultations and instruction. He further argued that traditionally, mastery of the Reference Collection and skill in this kind of Ready Reference look up has been one of the defining features of the Reference Librarians. He therefore concluded that, the supportive Staff could answer many of such Reference and Information Inquiries perfectly well, especially if they are familiar with the appropriate Reference tools. Indeed, any Library, which wishes to handle effectively, the range of such Reference and Information Inquiries that typically arise at the Reference Desk will want to seek for the expertise of the most experienced Reference Librarians around.

The basic assumption of the second hypothesis lies in the fact that it is expected that the time Users spend waiting for the response to their inquiries or for the provision of Reference and Information Service should be minimal. Hence, the need for the quantification of the amount of time that Reference Librarian spend with Library Patrons or in finding solutions to the inquiries of their clientele. This is because, apart from defining Reference work for Library Planners, Jestes and Laird (1968:9) add that it also brings out in clear terms the types of Reference and Information Inquiries made by Library Patrons. Therefore, to test the above hypothesis, One Way Analysis of Variance (ANOVA) was employed and the result is shown in table 2 below.

Table 2 (a): Comparative Analysis Of Time Taken To Answer Different Type Of Reference And Information Inquiries

Group	N	X	SD	SE
Ready Reference (RR)	1425	7.6934	5.4723	.1450
Information on Specific Topic (IST)	604	12.8983	7.9420	.3232
Directional Information (DI)	586	2.7567	5.9457	.2456
Information on Research (IR)	681	18.4010	8.6596	.3318
TOTAL	3296	9.9819	8.6020	.1498

Table 2 (B): Anova Summary Table

Source	DF	SS	MS	F' Ratio	F' Crit.	P
Between Groups	3	91461.4697	30487.1566	658.7649	2.60	.0000
within Groups	3292	152351.3438	46.2793			
TOTAL	3295	243812.8135				

F' Ratio = 658.7849, DF = 3, F' Critical = 2.60 P= 0.05, df1=3, df2=3292

Table 3: Reference And Information Inquiries And Their Wait-Times

Type Of Inquiries	Maximum Wait-Time	Minimum Wait-Time	Average Wait-Time
Ready Reference (RR)	9 Minutes	2 Minutes	7 Minutes
Information on specific topic (IT)	16 Minutes	3 Minutes	12 Minutes
Directional Information (DI)	5 Minutes	2 Seconds	2 Minutes
Information on Research (IR)	49 Minutes	9 Minutes	18 Minutes

From the ANOVA summary above Table 2 (b) the hypothesis that " There is no significant difference in the mean wait-time of the responses to the different categories of Reference and Information Inquiries made by Students" is rejected because F' ratio, 658.7849 is quite greater that F' Critical, 2.60 at 0.05 level. Hence, it could be concluded that differences do exist in the mean wait-time of the responses to the different categories of Reference and Information Inquiries made by the Students.

Discussion

From the ANOVA summary table and analysis done from the Query Analysis Worksheets and presented in table 3 below. The study discovers that Ready Reference Inquiry has an average mean wait-time of 7 minutes, a minimum of 2 minutes and a maximum of 9 minutes.

As obtained in similar researches of this kind, Andres (1972), Marcella (1975), e.t.c., the mean wait-time of Directional Information (DI) type of inquiry was found to be 2 minutes, with a minimum of 2 seconds and a maximum of 5 minutes. The Ready Reference (RR) inquiries recorded a mean wait-time of 7 minutes, with a maximum of 9 minutes and a minimum of 2 minutes.

Information on Specific Topic (IST) has a mean wait-time of 12 minutes, with a minimum of 3 minutes and a maximum of 16 minutes. The Information on Research (IR) inquiry has a mean wait-time of 18 minutes, with a minimum of 9 minutes and a maximum of 49 minutes. These results have closely tallied with the result of similar researches, such as Marcella (1975: 274) and Katz (1987:12). Because even Katz that gave not more than one minutes to Ready Reference submits that, the catch is that while 90% of such inquiries are simple to answer, another 5-10 % may take even hours of searching.

Generally, the high, 12 minutes, mean wait-time recorded by Directional Information in this research work as against 2 seconds-1minute recorded in earlier mentioned researches of this nature could be attributed to lack of library orientation and library instructions. Because students are not given proper orientation and instruction on how to use the Library and it's resources, they tend to rely heavily on the Reference Librarians for every Directional Information. Apart from showing them the directions, very often the reference librarians physically stood up and take the users to the point of direction.

Similarly, the low, 18 minutes, mean wait-time recorded by Information on Research in this research as against 1 hour- even days could be associated with lack of important Reference and Information Services in most of the Nigerian University Libraries studied. None of the Library surveyed is Indexing, Abstracting, compiling Bibliography, e.t.c done. There is no doubt to the fact that Indexes, Abstracts, Bibliographies, e.t.c. Constitute the secondary bibliographical tools for research work. The status and level of Reference staff also contributed to the low mean wait-time recorded by Information on Research. Most of the Reference staff that handles Reference and Information Inquiries in Nigerian University Libraries are Paraprofessional Staff. It is important to note that Information on Research is the kind of service that require the broad knowledge and important judgment of the skilled Reference Librarian. This is why Whiteson (1995:107) aptly remark that, if there is one service, which clearly needs professional level staffing, it is Information on Research.

Conclusion

The study concludes that from the above analysis, Reference and Information Service provision in Nigerian University Libraries is still in passive comma. Lack of library orientations and library instructions, qualified reference staff, adequate and varied Reference and Information Services have been identified as among the factors that are contributing to the passive nature of Reference and Information Service provision in Nigerian University Libraries.

This study therefore suggest that in order to provide quick, effective and efficient Reference and

Information Service provision in Nigerian University Libraries, there is the need to:

1. Mount library orientations and library instructions in Nigerian University libraries.
2. Provide Indexing, Abstracting, and compiling Bibliography, e.t.c services.
3. Professional and well experience Paraprofessional Staff should manned Reference Desks.
4. The reference department should be automated

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