

ICT Skills among the Research Scholars of Manonmaniam Sundaranar University – A Survey

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ABSTRACT: Today the higher education system is widely influenced by technology. Hence it is necessary to explore the skills of research students about the use of computer and different ICTs for educational purposes. This study aims to investigate the awareness, usage of information and communication technologies (ICTs) among the research scholars in Manonmaniam Sundaranar University, Tirunelveli. The data was collected from M.Phil and Ph.D scholars who are involved in research, in order to get information and awareness about their abilities and skills in ICT. The study further shows that most of the research scholars have inadequate knowledge about the tools of MS Office (Excel & Word), which is more essential and useful. The study was based upon information collected through a questionnaire consisting of open and one close ended options. The study focused to identify the problems faced by the respondents on information communication technologies and online searching techniques. Recommendations were given for maximum utilization of ICT enabled infrastructure by research students

Keywords: ICT, research scholars, university, survey, skills ,India

Date of Submission: 19-09-2017

Date of acceptance: 29-09-2017

I. INTRODUCTION

The revolution of information and communication technology is seen across the globe and the storm has even caught up with developing countries like India. Information and communication technologies have introduced paved a new way to the methods of teaching, research and embedded into educational facilities for online learning and research collaboration. In some countries, they provide fast Internet access to students at free of cost. In India, one should pay for accessing the Internet, at cyber café or at home (some libraries provide free access). To improve ICT services in the library, researchers need to change the way they use the ICT for their research work. ICT has given rise to new modes of organizing the contents in higher education and various avenues in research process so as to enhance the ICT skills.

The importance of ICT in higher education needs to be emphasized in the current evolving environment. The educative use of new emerging ICTs facilitates quick and easy access to a wide range of information resources globally. In fact, it is easy to visualize the learning system with information technology. Hence a research on ICT skills among the research scholars of Manonmaniam sundaranar university, Tirunelveli has been taken up.

II. LITERATURE REVIEW

Eze, Sunday C et al (2012), have made an attempt to study on Determinant factors of information Communication Technology (ICT) adoption by government – owned universities in Nigeria. They have identified 13 factors to determine the adoption of ICT in Nigerian universities. 30 senior executives were chosen as sample group using purposive method. It was found that government universities have not yet been utilized the potentialities of ICT. Certain irregularities and poor internet connectivity were the valid reasons for minimum utility of ICT.

Khan, S., Bhatti, & Khan, A. (2011) recommended that teachers during lectures should make use ICT for effective learning process. Most of respondents frequently use internet due to non-availability of guidance. They are unable to use advance searching techniques and faced difficulties in finding relevant literature. Due to lack of awareness on databases most of the library visitors used search engines. Most of the users are unaware of e Books, open access books and journals. Computer labs facility is also insufficient and do fulfill the requirements of the users.

Adeyoyin, Samuel Olu (2005) undertook a survey about the ICT literacy among the working librarians

in Nigeria. A questionnaire method was adopted to assess the quality of Librarians to what extent, they were ICT literate and illiterates. Library staff members of 18 universities in Nigeria were chosen for the study. Nearly 32% of the respondents were ICT illiterates and 68% (approx) of the survey group were ICT illiterates. The researcher tried to address the gap between desired level of ICT literacy and the present scenario.

Al – Ansari, Husain (2011) carried out a survey about the applications of ICT in special libraries in Kuwait. It has been identified that many libraries were not fully automated. Still 25% of the libraries follow manual methods. Lack of trained staff, poor priority ICT programs was the barriers to implement ICT enabled services in libraries. The author recommended that funds should be allotted for establishing such an environment. It becomes a mandatory to identify the potential capabilities of LIS Professionals and to place them accordingly. Regular training programmes will equip the team to work effectively.

Husain, Shabahat and Nazim, Mohammad (2015) have made an attempt to study on effect of Information and communication technologies in academic libraries of India. They have administered questionnaires to select libraries and received response at a rate of 50%. Traditional ICT solutions were found in libraries which raised questions on qualitative perspectives of Librarians and their skills. Knowledge creation and sharing using various tools like blogs, wikis, Real Simple Syndication feeds and social networking were not seen at most.

Objectives of the Study

The main objective of this study is to explore current level of knowledge and skills with regard to computers and ICT usage for educational and research purposes among the research scholars of the Manonmaiam Sundaranar University, Tirunelveli, India.

- To reveal the importance of the value of online resources.
- To promote the use of ICT to some extent.
- To identify the relationship among the users about the use of Internet

1.4. Hypothesis

There is no significant association between before and after the use of Internet among the chosen sample group.

III. METHODOLOGY

A well structured questionnaire was developed on the basis of the objectives of the study. The questions spread over the following areas such as profile of the respondents, Attitude towards ICT, Use of ICT and skills of research scholars and access to research information on the internet. To facilitate the quantification and analysis of data, close-ended questions were also used for efficient comparison. A random sample of 130 research scholars from Manonmaniam Sundaranar university, Tirunelveli, was selected and questionnaires were distributed among them. Of those, 120 questionnaires were returned and found completed.

IV. DATA ANALYSIS AND DISCUSSION

Presentation of data is possible only when an analysis takes place in any kind of research.

Table 4.1: Gender wise Frequency

Gender	Frequency	Percentage
Male	53	44.17
Female	67	55.83
Total	120	100

It is very interesting to note that most of the respondents were female and followed by male.

Table 4.2: Age wise Frequency

AGE GROUP	Frequency	Percentage
21-25	58	48.33
26-30	45	37.50
Above 30	17	14.17
Total	120	100

It is very clear to understand that 58 respondents were in the age group of 21 – 25 and 45 were in the age group of 26-30.

Table 4.3: Department wise Frequency

Department	Frequency	Percentage
Science	71	59.17
Social Sciences	49	40.83

It is noteworthy to mention that 71 respondents belong to Science stream and the remaining 49 belong to Social Science.

Table 4.4: Locality of Residence

Locality	Frequency	Percentage
Rural	63	52.50
Semi Urban	17	14.17
Urban	40	33.33
Total	120	100

Most of the research students (52.50) hail from rural areas. Only 40 users belong to urban areas.

Table 4.5: Course wise Frequency

Course	Frequency	Percentage
M.Phil	95	79.17
Ph.D	25	20.83
Total	120	100

It is lucid to state that 95 students are pursuing M.Phil and 25 students are doing Ph.D. in Science / Social Sciences.

Figure 3.5.1

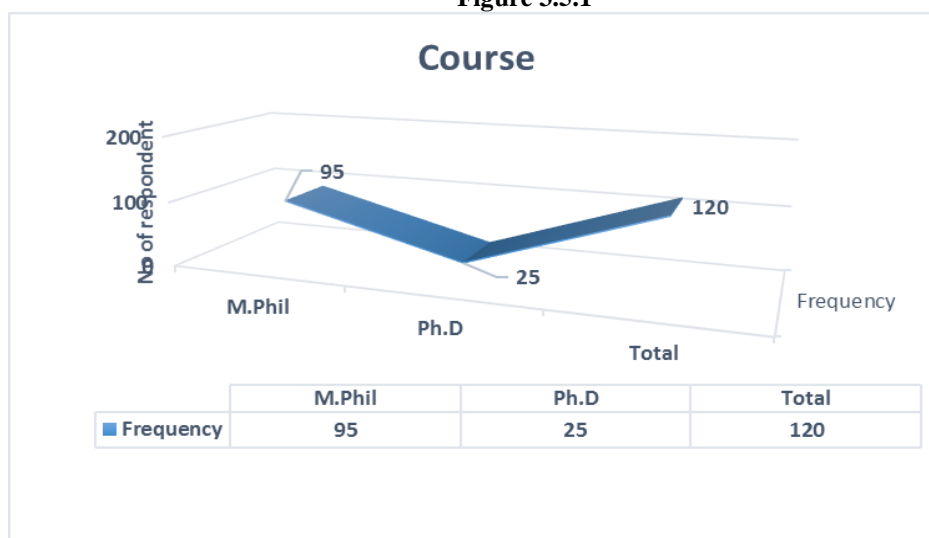


Table 4.6: Usage of Computer

Opinion	Frequency	Percentage
Own computer	110	91.6
Others	10	8.3
Total	120	100

It is interesting to claim that 110 of the students do have computers at home, and others (8.3%) use computers at department / Library.

Table 4.7: Internet Connectivity

Opinion	Frequency	Percentage
YES	85	70.83
NO	35	29.16
TOTAL	120	100

More than 85 research scholars are having internet connection for research activities.

Descriptive Statistics

Mean	60
Standard Error	2
Median	60
Standard Deviation	2.828427

Sample Variance	8
Range	4
Minimum	58
Maximum	62
Sum	120
Count	2
Largest(1)	62
Smallest(1)	58

The above table presents the descriptive statistics of the standard error which was 60 and standard deviation was 2.83. It is found that the most of the respondents were utilizing the internet for their research purposes only.

Table 4.8: Use of Mobile

Opinion	Frequency	Percentage
Yes	62	51.67
No	58	48.33
Total	120	100

More than half of the scholars i.e n=62 were using mobile for research purposes. Though mobile connectivity has made the human beings inevitable device for life, still 48.33% of the respondents did not use for any academic activities.

Table 4.9: Purpose of Using Internet

S.No	Purpose	Frequency	Percentage
1.	Research	45	33.33
2.	E-Mail	110	16.67
3.	Downloading E-resources	30	25.00
4.	Online Shopping	10	04.17
5.	Assignment	7	05.83
6.	Chatting	5	04.17
7.	All the above	13	10.83
	Total	220	100%

It is pathetic to mention that only 45 participants of this survey use ICT for research purposes. It is mandatory to check the emerging thrust areas in any discipline at regular intervals. 30 respondents use internet for downloading the e resources.

Figure 4.9.1: Purpose of using internet

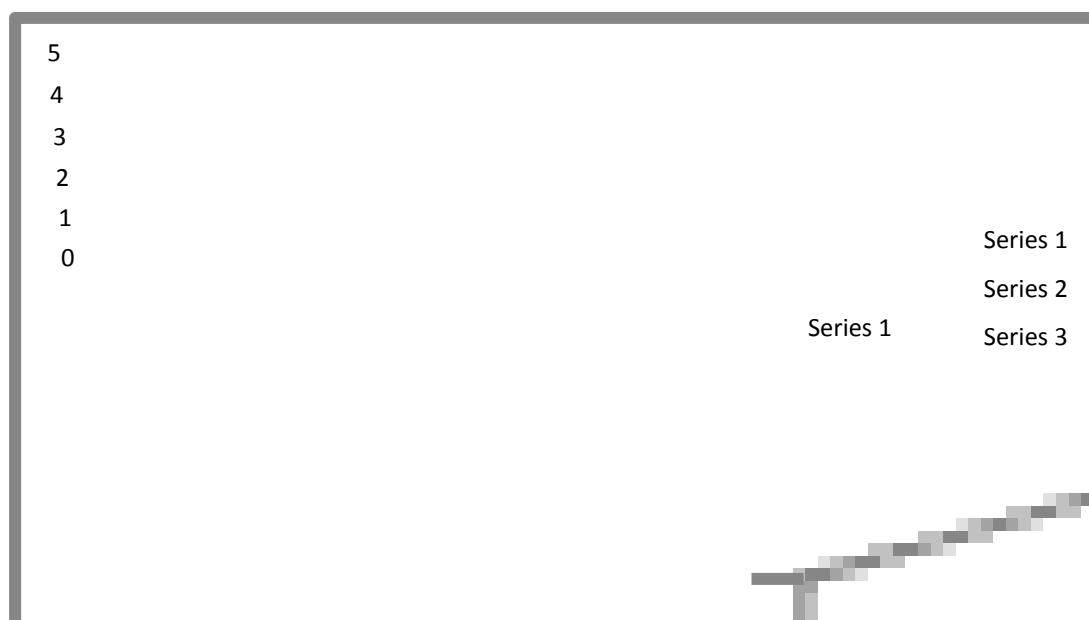


Table 4.10: Preferred Search Engines

S.No	Search Engine	Frequency	Percentage
1.	Google	70	58.33
2.	Yahoo	20	16.67
3.	Ask.com	10	8.33
4.	Duck	7	5.83
5.	Bing	5	5
6.	AOL	4	3.33
7.	Others	3	2.50
	Total	120	100

It is commendable to state that Google is updated regularly through the regional networks. Hence a large number of users (70) prefer to access the e collections on Google. Only 20 students have used Yahoo .

Table 4.11: Usefulness of the Internet

S.No	Opinion	Before using Internet			After using internet		
		Male	Female	Total	Male	Female	Total
1	Effective	16	10	24	47	57	84
2	Ineffective	37	51	86	6	10	16
3	Total	53	67	120	53	67	120

The table express significant difference between before and after the use of internet. Among 120 respondents, majority of (37 male) respondents feel that without the use of internet research will be ineffective. 57 female respondents claim that the research activities was fruitful which is effective after using internet facility.

**t-Test: Two-Sample
Assuming Equal Variances**

	Before using Internet	After using Internet
Mean	13	52
Variance	18	50
Observations	2	2
Pooled Variance	34	
Hypothesized Mean Difference	0	
Df	2	
t Stat	-6.68844	
P(T<=t) one-tail	0.010816	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.021631	
t Critical two-tail	4.302653	

The table indicates that t statistic value was -6.688 which is less than the calculated value. Hence it is assumed to reject the null hypothesis, and null hypothesis is accepted. There is no significant relationship between before and after the use of internet for research work.

Table 4.12: ICT Facilities recommended by Research Scholars

S.No	Facilities	Frequency	Percentage
1.	Internet connectivity (Personal Computer)	40	33.33
2.	Internet connectivity (Laptop)	30	25.00
3.	Digital Llibrary	18	15.00
4.	Photocopy and Scanner	13	10.83
5.	Multimedia projector	14	11.67
6.	Tele / Video Conferencing	5	04.17
	Total	120	100

It is important to state that 70 (40+30) students preferred internet connected Desk Top and laptop. Only 5 respondents had preferred tele and video conferencing for research purposes.

Table 4.13: Purpose of Google Usage
(Science - 90) (Social Science – 30)

S.No	Google Usage	Science (n = 90)			Social Sciences (n = 30)		
		Mean	SD	Rank	Mean	SD	Rank
1.	Google Simple	3.76	0.49	I	3.76	0.70	I
2.	Scholar	2.96	0.83	IV	2.95	0.86	IV
3.	Image	2.84	1.04	VI	3.04	0.80	V
4.	Book	3.10	0.87	II	2.71	1.10	VIII
5.	Videos	2.56	1.00	VII	3.23	0.83	III
6.	Translate	3.03	0.83	III	3.09	0.88	IV
7.	News	2.89	0.96	V	3.38	1.02	II
8.	Analytics	2.26	1.02	VIII	2.85	1.15	VII

Google usage was analysed among the research scholars of Science and Social Sciences streams. Google Simple was ranked first among the respondents. A major deviation was found on *Google images* among the Science stream students and *Google analytic* was also found among the Social Sciences.

Table 4.14: Source of Information on Internet

Source of Information		Science			Social Sciences		
		Mean	SD	Rank	Mean	SD	Rank
B1.	Open Access Articles	4.07	0.7	I	4.09	0.94	II
B2.	Open Access Books	3.34	1.15	III	3.80	1.28	III
B3.	YouTube Information	3.25	1.24	IV	4.14	0.85	I
B4.	Electronics Journal	3.45	1.09	II	3.66	1.39	V
B5.	Slide Share	3.45	1.39	II	3.76	1.09	IV
B6.	Electronic Conference	3.10	1.08	V	3.57	1.24	VI
B7.	Literature	3.34	1.01	III	3.80	1.32	III

The above table indicates the source of information on the internet usage by research scholars of Science and Social Sciences as well. Open access articles had received a mean value of 4.07 and occupied top among the Science scholars. YouTube mean value was 4.14 and reached top among the Social Sciences.

V. FINDINGS

- ❖ Most of the scholars use internet for E-mail purposes.
- ❖ Three- Fifth of Scholars like Google search engine.
- ❖ Scholars have PC with Internet connection.
- ❖ Simple Google is the highest average of Google usage among both Science and Social Science scholars.
- ❖ Open access article was found to be the highest average among Science scholars for source of information on Internet and You tube information is the highest average among the Social Science scholars.

VI. CONCLUSION

Electronic resources have opened up many exciting opportunities and potentials for academic libraries. Present trend of information explosion and competency lead to a challenging task. It is mandatory to make them aware about the electronic resources among the Scholars and provide them a friendly environment. It will further enhance and maximize the use of ICT to a greater extent. The effectiveness of the internet could be perceived from the high number of students for data mining. ICT facilities have attracted a large number of students and faculty to publish research papers.

ACKNOWLEDGEMENT

The authors acknowledge Dr.K.Jayaraman, Associate Professor, Department of Economics, Periyar University, Salem for his support and help.

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IOSR Journal Of Humanities And Social Science (IOSR-JHSS) is UGC approved Journal with Sl. No. 5070, Journal no. 49323.

S.Gandhimathi. "ICT Skills among the Research Scholars of Manonmaniam Sundaranar University – A Survey." *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)* , vol. 22, no. 09, 2017, pp. 48–54.