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USE OF INTERNET IN LIFE SCIENCE RESEARCH AMONGST TEACHERS & STUDENTS:A SURVEY

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Abstract:

Internet is an integral aspect of information and communication technology. It is becoming an indispensable tool for quality teaching, learning, in research, and in academic sectors. Its impact on education and research has been enormous. In the present study, extent of awareness of internet use amongst teachers and students of life science was determined. Evaluation of use of internet for research work was carried out. For this purpose, the self designed questionnaire was administered to the respondents. The completely filled questionnaires were statistically analyzed. Most of the teachers and students were found to be aware of internet use. This survey research investigated the attitude towards the internet use in life science research and problems faced while its applications.

KEYWORDS:

Internet, communication technology, life science, questionnaire.

INTRODUCTION:

Now -a -days every aspect of our day to day life is influenced by internet. Whether it is shopping, business, banking, paying various bills, learning and social gathering. Internet services are knocking everywhere at our door and making our life easier and smooth. When it comes to education and research, internet is paving way for a great leap. The internet made the information on our fingertips. It facilitates the sharing of information by millions of people all over the world. It is like a global library that every one can access at any time from anywhere. Presently we are living in knowledge society where information is key item required for progress.

In this era of information, internet has made tremendous impact on academic activities of faculty members, researchers and students. Internet creates an excellent academic environment where academic community can perform their activities in a rejuvenated manner [Surendra Babu et al,2010]. For researchers, lots of e -journals in various fields are currently available electronically on web. Some exists only in the on line format and others have both print as well as e- versions [Tonny,2000].The study conducted by Kumbhar et al [2006] at Karnataka University, Dharwad indicated that internet e -resources are highly useful for research and academic community. Kumar and Kaur [2006] found that internet had become a vital instrument for teaching, research and learning in Engineering colleges of three states of India (.Punjab, Haryana and Himachal Pradesh).

Our main aim of this study was to understand the awareness and use of internet amongst the faculty and students from life science branch. The study was conducted in and around Solapur University, Solapur which was focused on inviting the answers through questionnaire distributed among these respondents.

OBJECTIVES OF THE STUDY

To identify the users approach to keep themselves updated with internet access'
To identify the computer literacy along with ownership of the computers among the users.
To identify the users internet experience and acquiring skills by the users.
To find out the time duration, purpose and type of service used for internet service by the respondents.
To understand the preferences and methods of using E-resources accessed by the respondents.
To provide the suggestions for the problems faced by the internet users and up gradation of traditional methods.

METHODOLOGY

The population for the present study includes teachers and the students involved in the life science research in and around Solapur city. The samples were selected by random sampling technique .Keeping in mind the above objectives, the questionnaire was designed to collect the data consisting of 19 questions. The present analysis was done during January to March 2012.These 19 questions were categorized into three groups as-

1] Demographic profile.2] Computer literacy.3] Use of internet.

Pilot study was carried out to reframe the questionnaire. The questionnaire was distributed among randomly selected population by hand and through E-mail. The respondents were requested to fill the questionnaire as per their convenience and return back to investigators as early as possible. The total of 140 questionnaires was distributed. The filled in questionnaires received from the respondents were used for data analysis and interpretation. For data analysis, simple statistical methods like percentage, frequency, cross tabulation and Chi square test were used.

RESULTS

The results of our work are represented in various tables [1-13].Out of 140 questionnaires distributed, 108 questionnaires were received back. 100 questionnaires were found to be useful for analysis. Thus, the response rate was 71%.

A] Demographic profile

Demographic profile of the respondents (Table 1)

Age group [years]			20-25	25-30	30-35	35-40	>40	total
gender	Male	teacher	2	3	2	-	12	19
		student	27	-	-	-	-	27
	female	teacher	5	3	2	3	9	22
		student	32	-	-	-	-	32
		Total	66	6	4	3	21	100

Table-1shows the demographic profile of the respondents .Out of 100 respondents forty one were teachers and fifty nine were students. Of the total respondents forty six were male respondents and fifty four were female respondents. Out of 100 respondents sixty six were in the age group of 20-25 years, six were in the age group of 25-30 years, four were from the age group of 30-35 years, three from the age group of 35-40 years and twenty one were of more than 40 years of age. After application of Chi square test it was revealed that there was non significant distribution of teacher and students (P>0.05) noticed.

B] Computer literacy

Computer training (Table 2)

Sr.no.	category	trained	untrained	total
1	Teacher	37	4	41
2	Student	48	11	59
Total %		85	15	100

In the second section of the questionnaire, questions were designed in such a way that the knowledge, awareness and attitudes towards computer and internet literacy could be revealed. This responsive sheet was also contained the information required to know the professional certificate of the respondent about computer knowledge. It was found that 85% respondents took professional training to acquire the computer skills, while 15% were untrained. Among 85% trained respondents 37% were teachers and 48% were students [Table-2].After subjecting the above reading for statistical analysis it was found that the trained teachers and students number was non significant.

Respondents having own computer/laptop/both (Table3)

Sr. no.	Owner of	Teacher	Student	Total %
1	Only laptop	14	18	32
2	Only computer	9	8	17
3	Both	18	10	28
4	No laptop/computer	-	23	23
	Total	41	59	100

From the Table -3 it is revealed that 17 % owned only computers, while 32 % owned only laptops.However, .28 % owned both computer as well as laptop. And 23%of the respondents who were only the students had no computer and laptop

C] Use of internet

Experience of using internet (Table 4)

Sr.no.	Experience [years]	Teacher	Student	Total %
1	<1	2	17	19
2	1-3	5	24	29
3	3-5	9	10	19
4	>5	25	8	33

Respondents were asked about how long they had been using internet. It was found that 33% of them had been using internet for more than 5 years. 19% respondents had been using internet for 3-5 years.29% for 1-3 years and 19% had less than one year experience of using internet [table 4]

Methods of learning internet skills (Table 5)

Sr.no	Method	Teacher	Student	Total %
1	Trial & error	29	15	44
2	Guidance from colleagues and friends	7	39	46
3	Training	15	5	20

Respondents were asked to indicate the method used for acquiring internet skills. The analysis revealed that the most popular method used by the respondent was guidance from colleagues and friends. A majority of the respondents [46%] used this method to learn the internet skills followed by trial and error with 44 % responses.20% of the respondents learnt the internet through training.

Amount of time spent on internet (Table 6)

Sr. no.	Time[hours/week]	Teacher	Student	Total %
1	1-5	15	40	55
2	5-10	12	13	25
3	>10	14	6	20

Table 6 shows that the maximum number of respondents' i.e.55% use internet for 1 to 5 hrs. /week, 25% use internet for 5-10 hrs. /week. Only 20% respondents use internet for >10 hrs/week. After subjecting above values for statistical analysis it was evident that students use internet for less amount of time as compared with teachers($P<0.01$).

Purpose of using internet (Table no 7)

Sr no	Purpose	Teachers	Students	Total %
1	Searching subject information	40	59	99
2	Updating of subject knowledge	36	13	49
3	Research data analysis	27	22	49

[Multiple answers were permitted]

For gathering the information to know the purpose of using internet, three options were given and they were asked to select any number of options as per their choice It was found that 40 % of teachers and 59% of students used internet for obtaining subject information, while 36 % of teachers and 13% of students were accessing internet for updating the knowledge and obtaining latest information regarding the recent development in their subject. However, 27 % of teachers and 22% of students used internet for research data analysis (table 7).

Type of internet service used (Table 8)

Sr.no.	Type of service	teacher	student	Total %
1	E-mail	25	22	47
2	WWW	36	52	88
3	FAQ	3	3	6
4	Blog	-	-	-
5	Face book	3	14	17
6	Online library	11	-	11
7	Discussion group	-	-	-

. (multiple answers were permitted)

For gathering the information to know type of internet service used, seven options were given and they were asked to select any number of options as per their choice The analysis revealed that WWW [88%] was chosen as the most popular service followed by internet services through E-mail [47%].Only 6% used FAQ, as internet service. The use of internet services in order of preference is WWW followed by e-mail, Face book, online libraries and FAQ. No respondent was found to use blogs and discussion groups from the present study (Table 8)

Types of E-resources (Table 9)

Sr.no.	E-resource	Teacher	Student	Total %
1	E-journal	30	30	60
2	E-books	33	41	74
3	E-databases	11	13	34
4	Videos	9	24	33
5	Images	19	24	43

(multiple answers were permitted)

When the respondents were asked regarding the preference for E-resources, it was observed that E-books [74%] were the most preferred type of E-resources by the respondents followed by E-journals[60%],images[43%]E-data Bases[34%],videos[33%]. [Table 9].

Method of using E-data (Table 10)

Sr.no.	Method	Teacher	Student	Total %
1	On screen	29	24	53
2	Downed in storage devices	32	42	74
3	Printouts	23	11	34

(multiple answers were permitted)

Table 10 depicts methods of using e-data by the respondents. Most of the respondents [74%] preferred to download e-data while 74% preferred to use it on screen only and 34% preferred to take the printouts of e-data for use. Statistical analysis of above data emphasized that both teachers and students use above methods for availing E-data equally. (Non significant).

File format for downloading research data (Table 11)

Sr.no.	File format	Teacher	student	Total %
1	PDF	34	53	87
2	HTML	6	6	12
3	WORD	17	13	30
4	No preference	4	6	10

(Multiple answers were permitted)

E- Data is available in different file formats. It was observed from analysis that 87% of the respondents preferred PDF format for using E-data whereas 30% of the respondents preferred WORD followed by 12% HTMLformat of using E-data.However10% showed no preference. [table11]. From above data it can be stated that the students prefer PDF format more compared with teachers. However, the teachers prefer WORD format more compared with students.

Problem faced while using internet (Table 12)

Sr.no.	Problem	teacher	student	Total %
1	Difficulty in getting relevant data	10	33	43
2	Overload of information on internet	14	17	31
3	Electricity failure	20	33	53
4	Lack of training	4	9	13
5	Unwanted pages	7	17	24
6	Traffic jam	10	15	25
7	Time consuming	16	14	30

(Multiple answers were permitted)

It can be inferred from table 12 that while using internet various problems do arise. The analysis of the present study reveals that 53% of the respondents face the problem of electricity failure.43% respondents of the opinion that they face difficulty in getting relevant information on internet. While 30%

felt that use of internet was time consuming process. 25% of users had traffic jam while accessing internet. 24% users were of the view that retrieval of unwanted pages was the main problem. 11% users felt that lack of training makes internet use difficult.

Opinion on traditional research methods (Table 13)

Sr. no.	Category	Yes	No	Cannot predict	Partially possible
1	Teacher	36	5	6	12
2	Student	20	6	2	13
	Total %	56	11	8	25

Table 13 discloses that majority [56%] respondents were of the opinion that internet can replace traditional research methods while 25% felt that internet can partially replace traditional research methods. However 11% felt that internet would not replace traditional research methods in future.8% respondents could not opine on this problem. Statistical analysis of above data reveals insignificant results.

DISCUSSION

Internet is a powerful and dynamic tool for communication. It is the largest source of information at the global level [Maheshwarappa and Ebnazar, 2003].The present study revealed that 85% respondents took computer training. This indicates the awareness of this community towards use of new technologies for the progress. Analysis of the data revealed that less percentage of the respondents spent more than10 hours /week. This finding correlates with the studies carried out by Rajeev Kumar and Amritpal Kaur [2006].They have carried out a survey in engineering colleges of north Indian states and the respondents were teachers and students. They have stated that internet service is more beneficial for academic community for engineering colleges. The most popular method used by the respondent for learning internet skills is the guidance from colleagues. This finding is in accordance with the work of Rajeev Manhas [2008] with reference to dental science.WWW is the most preferred internet services used by respondent in current investigations. This is not in agreement with studies carried out by Rajeev Manhas [2008] with respect to dental colleges. PDF file format for downloading data is the most popular way used by the respondents in the present study. This is consistent finding with the studies by Bhaskar Mukharjee and Prashant Kumar [2010] from Banaras Hindu University, Varansi where they have conducted the survey among research scholars of various departments like history, political sciences, psychology and economics at the faculty of arts. From our study it was observed that 56% of the respondents feel that internet and E-resources can replace traditional methods and 44% are of the opinion that internet and electronic resources cannot replace traditional method of research. As per the survey made by Rajeev Manhas (2008) in dental sciences teachers and students respondents was of the opinion that most of the dentist 80.2%felt that internet and electronic resources cannot replace the physical resources whereas 18.8% respondents were of the opinion that internet and electronic resources can replace physical resources.It was also observed from our study that during the use of internet various problems do arise like electricity failure, speed of access to internet, difficulty in getting relevant data,traffic jam etc.

The present study is confined to population in and around Solapur city(Solapur University,Solapur). Only life science researchers are covered in the present survey. However this study may help universities to improve infrastructure facilities by providing adequate computer and internet facilities on the campus for all the students. Even the universities can offer new technology literacy courses to improvise attitudes towards the research.

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