Use of ICT Based Resources and Services among the Users of Arts and Science Colleges in Virudhunagar District: A Study

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ABSTRACT

The present paper explains about the ICT resources and their use by the faculty members, research scholars and students in the Arts and Science colleges of Virudhunagar District. Developments in ICT have made significant impact on all spheres of human life. The data is collected through a questionnaire to study the information need for the faculty members, research scholars and various students in Arts and Science colleges of Virudhunagar District. This paper describes the use of ICT based resources and services by the faculty members, research scholars and students. This paper discussed the awareness adequacy, purpose, usefulness, and satisfaction level of using ICT based resources among the users of arts and science colleges in Virudhunagar District.ICT has introduced new methods of teaching and conducting research in education facilities for online learning, teaching and research collaboration. This paper has revealed that the ICT available in Arts and Science Colleges in Virudhunagar District are more helpful in fulfilling their information needs. There is a need to train the faculty members, research scholars and students to use the ICT.

KEYWORD

ICT, Internet, E- Resources , Arts and Science Colleges, Search Engines, E- journals and Digital Library.

INTRODUCTION

Today, information sharing is achieved through networks. The progressive increase in the use of ICT in education has drastically changed the teaching and learning process. ICT plays a vital role in bringing out changes in our society. Information and Communication Technologies plays an important role in Information Processing and retrieval systems. In the day context, all types of libraries via: academic, public and special are not only providing printed resources to the library users rather they provide printed, electronic as well as other Internet resources like e-books and databases for fulfilling the day to day academic and research requirements of the library users.ICT has impacted on every area of academic library service especially in the form of the library database important strategies, library structure

and consortium.ICT also helps to increase the usage of library resources and services. Information communication technology is not only highly important for profit, but for individual academic institution to develop and promote technological improvement. ICT presents an opportunity to provide value added information services and access to a wide Varity of digital based information resources to their clients. The combination of information and communication technologies has created ICT, possibility one of the most powerful technologies devised by humanity. The developments in ICT should be put into service, both to improve the quality of learning and access to learning. ICT is any system designed to gather, process or distribute information or it is the science and skill of all aspects of computing, data storage, and communication. The utilization of ICT has become an indicator of the level of the nation's wealth. These resources are the driving forces for making an educated society. It is very effective in accessing and utilization of vast mass of information. In fact the impact of Information and Communication Technology is visible in every activity of college library. In recent years ICT has been regarded to have pervasive influences on the economy as well as other part of society. Society has been transformed by the rapid development and diffusion of ICT in to fields such as education, business, health, agriculture, and so on.

WHAT IS INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

Information Communication Technology is the technology required for information processing, in particular, to the use of electronic, communication devices and software applications to convert, store, protect, process, transmit, and retrieve information from any were, anytime. Information and communications technology (ICT) refers to all the technology used to handle telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions. Although ICT is often considered an extended synonym for information technology (IT), its scope is broader. ICT has more recently been used to describe the convergence of several technologies and the use of common transmission lines carrying very diverse data and communication types and formats.

ICT IN LIBRARIES

ICT has changed the traditional methods of library activities and services providing new dimensions for teaching, learning and research in higher educational institutions. With the help of ICT tools, it is possible to store, retrieve, disseminate and organize information by creating websites and databases. Information is now published both electronically and by print making it accessible to users according to their demands. It is important to assess the ICT applications in library and information centers in the context of changing user needs.

REVIEW OF RELATED LITERATURE

Review of related literature is conducted to enable the researcher to get a clear understanding about the specific field of study. It also helps the researcher to have an insight into the tested methods, procedures and interpretations of similar studies conducted elsewhere. Considerable amount of literature is available regarding application of Information Communication Technology (ICT) in libraries, professional development and continuing education needs of library professionals. But studies are relatively few regarding the impact of ICT on professional development and educational needs of library professionals. There are many studies on the impact of ICT. This review presents some of studies on ICT in libraries.

Murugesan and Balasubramani (2011): The main objective of the study is to survey the use and application of Information and Communication Technology in research and development libraries in Tamil Nadu. The study suggested the Research & Development institutions to give priority to consortia based subscription and boost the funds and recruitment of information technology trained staff for better ICT based services and products to their library users.

Krubu and Osawaru (2011): The primary purpose of the study is to ascertain the impact of ICT on Nigerian academic libraries. The research work highlights the advantages or merit associated with ICT on academic libraries in Nigeria. The inevitable conclusion that the researchers have arrived at in this study is that ICT has fulfilled its promise in academic libraries; there is remarkable rise in the use of ICT. This has led to the speed on library operations. ICT has also help to rub the problem of information explosion in this information era.

Sampath Kumar and Biradar (2010) observe the use of information communication technology (ICT) in 31 college libraries in Karnataka, India by analyzing the ICT infrastructure, status of library automation, barriers to implementation of library automation and librarians' attitudes towards the use of ICT. The survey carried out using questionnaire, observation and informal interview with selected college librarians show that lack of budget, lack of manpower, lack of skilled staff and lack of training are the main constraints for not automating library activities. Even though library professionals have shown a positive attitude towards the use of ICT applications and library automation, majority expressed the need for appropriate training to make use of ICT tools.

Mohamed Haneefa and Shukoor (2010) report the Information and Communication Technology (ICT) literacy among the library professionals of Calicut University. The study includes only the library professionals in the central library and departmental libraries of Calicut University. A structured questionnaire was used to collect data. The study reveals that the Professional Assistants are more ICT proficient in ICT skills than the Junior Librarians and Assistant Librarians. The use of ICT-based resources and services, library automation software, and general purpose application software is high among the junior professionals than the senior library staff. The use of digital library and institutional repository software is very low among the library professionals. Majority of the professionals had confidence in routine ICT and Internet tasks, and need training or orientation in library automation, digital library and institutional repository software.

Adeyinka (2009) examines the attitudinal correlates of some selected Nigerian librarians towards the use and application of ICT in various libraries. A total of 41 librarians from automated libraries in the Oyo state of Nigeria formed the study's population. The survey instrument used for the collection of data was a computer anxiety and attitude towards microcomputer utilization (CAATMU) scale and a librarian attitude questionnaire. The main objective of the study was to find relationship between demographic variables of respondents, age, gender, prior knowledge / experience and training, educational qualification, computer anxiety and librarians attitude towards ICT. The analysis of results show that all the four out of the five variables age, gender, educational qualifications and knowledge of ICT significantly correlate with librarian attitude towards ICT; while the variable ICT anxiety correlate negatively with the attitude of librarian towards ICT. The study emphasizes the need for libraries to embark on training their librarian who does not have knowledge of ICT.

OBJECTIVES OF THE STUDY

The study has been undertaken with the following objectives:

1. To study the awareness of ICT based resources among the users of Arts and Science colleges in Virudhunagar District.
2. To know the purpose and utilization of the ICT based resources among the users of Arts and Science colleges.
3. To find out the place of access to ICT based resources and services.
4. To ascertain the user preference search engine.
5. To identify the problem faced by the users of Arts and Science colleges in Virudhunagar District.
6. To determine the level of satisfaction among the users of Arts and Science colleges in Virudhunagar District.
7. To determine the frequency of internet usage of users.
8. To study usefulness of ICT based resources and services.
9. To identify the department wise of accessing ICT based resources and services.

AREA PROFILE OF THE STUDY

Virudhunagar District is surrounded by Madurai District on the North; Sivagangai District and Ramanathapuram District on the North East; and East; Tirunelveli District on the South and Western Ghat on the West. In 1985, the erstwhile Ramanathapuram District was trifurcated to create the districts of Ramanathapuram, Pasumpon Muthuramalinga Thevar Tirumagan (later renamed Sivaganga) and Kamarajar District (later renamed Virudhunagar District).

They are following colleges in Virudhunagar district:

1. A.K.C. College of Arts and Science , krishnankovil
2. AKD. Dharmarajas women college, Rajapalayam
3. ANJA College (Autonomous), Sivakasi
4. Devanga Arts College, Aruppukkottai
5. S.B.K. College, Aruppukkottai
6. Rajapalayam Rajus college, Rajapalayam
7. Sri kaliswari college, Sivakasi
8. Sri S.Ramasam Naidu Memorial College, Sattur
9. V.H.N.S.N. College, Virudhunagar
10. VPMM Arts and Science College for Women, Srivilliputtur
11. VVV.College for Women, Virudhunagar
12. The Standard Fireworks Rajarathinam College For Women (Autonomous) , Sivakasi.

METHODOLOGY

The survey method is used in this study. This study consists of both primary and secondary data. The data collection through the questionnaire is analyzed with averages and simple percentage. The required primary data is collected with the help of a suitable questionnaire. The questionnaire has been prepared in such a way that the respondents could easily understand the items. The researcher has employed a well structured questionnaire for collecting the data from the faculty and students of Arts and Science colleges in Virudhunagar District. In Virudhunagar District 12 Arts and Science colleges are selected by adopting simple random sampling method. In order to study the use of ICT the user respondent are selected. From each colleges 100 user respondent are selected by adopting purposive random sampling method. Thus totally 1200 user respondents are selected from the 12 Arts and Science colleges.

ANALYSIS AND INTERPRETATION

TABLE 1: CATEGORY-WISE DISTRIBUTION OF RESPONDENTS

S. NO.	CATEGORY	NO OF RESPONDENTS	PERCENTAGE
1.	Faculty	362	30.17
2.	Research Scholars	118	9.83
3.	Post Graduate Students	473	39.42
4.	Under Graduate Students	227	20.58
TOTAL		**1200**	**100.00**

A study of the data in table 1 indicates the category-wise distribution of respondents. It could be noted that, out of the total 1200 respondents, 30.17% of them are faculty member and 9.83% of them are research scholars. In this study 39.42% of the respondents are post graduate students and 20.55% of them are under graduate students. It is concluded that more research scholar followed by faculty members are the respondents in the study.

TABLE 2 : GENDER-WISE DISTRIBUTION OF RESPONDENTS

GENDER	NO OF RESPONDENTS	PERCENTAGE
Male	739	61.58
Female	461	38.42

TOTAL	**1200**	**100.00**

Table 2 indicates the Gender-wise distribution of respondents. It could be noted that, out of the total 1200 respondents, majority of the respondents (61.58%) belong to the male group and the rest of them (38.42%) are females. It is concluded that male respondents constitute more in number than female respondents.

TABLE 3: DEPARTMENT-WISE DISTRIBUTION OF RESPONDENTS

DEPARTMENTS	NO OF RESPONDENTS	PERCENTAGE
Science	727	61.58
Arts	473	39.42
TOTAL	**1200**	**100.00**

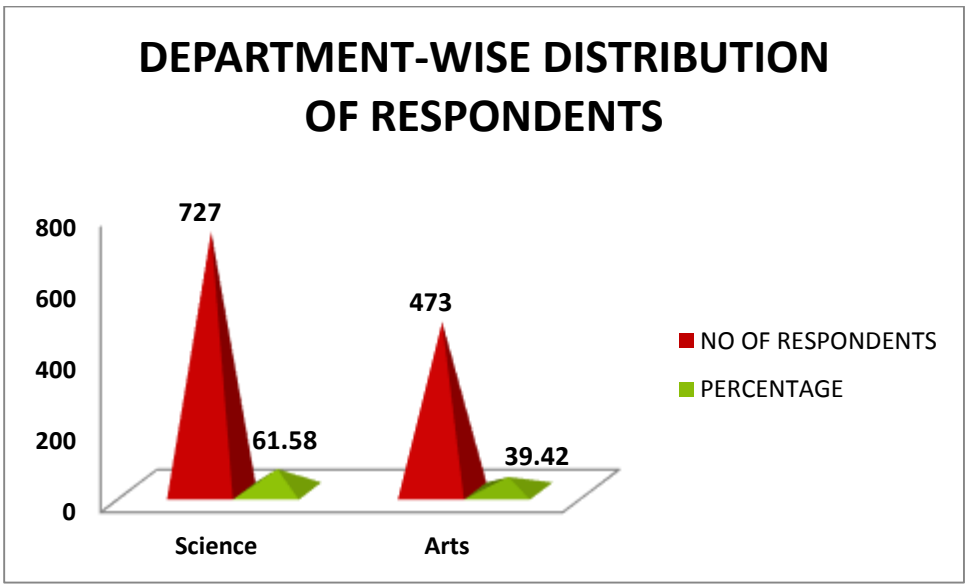


Table 3 shows the department-wise distribution of respondents. It could be noted that out of the total 1200 respondents, majority of the respondents (60.54%) belong to the science department and the rest of them (39.42%) are arts. It is concluded that science departments constitute more in number than arts departments.

TABLE 4 : STATUS-WISE DISTRIBUTION OF RESPONDENT'S ADEQUACY OF ACCESSING ICT BASED RESOURCES

STATUS	DAILY	WEEKLY	MONTHLY	TOTAL
Faculty	194 (53.59)	106 (29.28)	62 (17.13)	362

Research Scholars	68 (57.63)	31 (26.27)	19 (16.10)	118
PG Students	294 (62.16)	146 (30.87)	33 (6.97)	473
UG Students	147 (59.51)	66 (26.72)	34 (13.77)	247
TOTAL	**703 (58.59)**	**349 (29.08)**	**148 (12.33)**	**1200**

Table 4 indicates the status –wise distribution of respondent's adequacy of accessing ICT based resources come. Out of 1200 respondents 703 (58.59%) respondents are accessing daily,349 (29.08%) respondents are accessing weekly and 148 (12.33%) respondents are monthly accessing ICT based resources. With respect of faculty 53.59% of the daily accessing and 17.13% of them monthly accesses ICT based resources. Among 118 research scholars 57.63% of the daily accessing and 16.10% of monthly accessing ICT based resources. Among 473 PG students 62.16% of the daily accessing and 13.77% of monthly accessing ICT based resources. Out of 247 UG students 59.51% of them daily accessing and 13.77% of them monthly accessing ICT based resources.

TABLE :5 CATEGORY- WISE RESPONDENTS' PURPOSE OF USING ICT BASED RESOURCES

STATUS	FOR RESEARCH	CAREER INFORMATION	PREPARATION FOR CLASS TEACHING	GENERAL INFORMATION	TOTAL
Faculty	154 (42.54)	93 (25.69)	53 (14.64)	62 (17.13)	362
Research Scholars	40 (33.90)	27 (22.88)	23 (19.49)	28 (23.73)	118
PG Students	210 (44.40)	101 (21.35)	73 (15.43)	89 (18.82)	473
UG Students	47 (19.03)	78 (31.58)	88 (35.63)	34 (13.76)	247
TOTAL	**451 (37.58)**	**299 (24.92)**	**237 (19.75)**	**213 (17.75)**	**1200**

A study of the data in table 5 indicates the category-wise respondent's purpose of using ICT based resources. The category-wise analysis examines the following facts. It is clearly observed from the table that, 451 (37.58%) respondents have used ICT based resources for their research purpose. It is found to be more 44.40% any PG students. 299 (24.92%) respondents have used ICT based resources for carrier information; 237 (19.75%) respondents have used ICT based resources for preparation for class teaching and 213 (17.35%) respondents have used ICT based resources for general information purposes.

TABLE 6: STATUS-WISE DISTRIBUTION OF RESPONDENTS' TIME SPENT ON USING ICT BASED RESOURCES AND SERVICES

STATUS	0-1 HRS	1-2 HRS	2-3 HRS	MORE THAN 3 HRS	TOTAL
Faculty	209 (57.73)	91 (25.14)	49 (13.54)	13 (3.59)	362
Research Scholars	47 (39.83)	35 (29.66)	23 (19.49)	13 (11.02)	118
PG Students	273 (57.72)	96 (20.30)	54 (11.41)	50 (10.57)	473
UG Students	120 (48.58)	80 (32.38)	30 (12.16)	17 (6.88)	247
TOTAL	**649 (54.08)**	**302 (25.17)**	**156 (13.00)**	**93 (7.75)**	**1200**

Data presented in table 6 indicates the status-wise distribution of respondent's time spent on using ICT based resources and services. It could be noted that out of the total 1200 respondents, 649 (54.08%) respondents spend less than one hour per day; 302 (25.17%) respondents spend 1-2 hour per day; 156 (13.00%) of respondents spend 2-3 per day and 93 (7.75%) respondents spend more than 3 hours per day for accessing ICT based resources and services.

TABLE 7: CATEGORY-WISE RESPONDENT'S PLACE OF USING ICT BASED RESOURCES AND SERVICES

CATEGORY	CENTRAL LIBRARY	DEPARTMENT	CYBER CAFE	OTHERS	TOTAL
Faculty	80 (22.10)	162 (44.75)	63 (17.40)	57 (15.75)	362
Research Scholars	25 (21.19)	68 (57.63)	17 (14.41)	8 (6.77)	118
PG Students	130 (27.48)	173 (36.58)	80 (16.91)	90 (19.03)	473
UG Students	59 (23.89)	17 (6.88)	84 (34.01)	87 (35.22)	247
TOTAL	**294 (24.50)**	**420 (35.00)**	**244 (20.33)**	**242 (20.17)**	**1200**

Table 7 presents the result of place from where the respondents of Arts and Science colleges had access of ICT based resources and services. The result reveals that 162 (44.75%) faculty members accesses ICT based resources through department; 22.10% of them accessed through central library; 17.40% of them has access through commercially available cyber cafe and 15.75% of them could access through others. In the case of Research scholars, 68

(57.63%) of them accessed through department; 21.19% of them accessed through central library; 14.41% of them had access through their cyber cafe; and 6.77% of them could access through others. Out of 473 PG students 173 (36.58%) PG students access through departments; 130 (27.48%) PG students accessed through central library; 90 (19.30%) had access through their others and 80 (16.91%) PG students could access through cyber cafe. Out of 247 UG students 87 (35.22%) UG students access through other; 84 (34.07%) UG students accessed through cyber face; 59 (23.89%) had access through their central library and 17 (6.88%) UG students could access through department.

TABLE 8 : CATEGORY-WISE RESPONDENT'S SATISFACTION ON SEARCH ENGINES

CATEGORY	GOOGLE	YAHOO	ALTA VISTA	LYCOS	TOTAL
Faculty	160 (44.20)	147 (40.61)	43 (11.88)	12 (3.31)	362
Research Scholars	62 (52.54)	38 (32.20)	10 (8.48)	8 (6.78)	118
PG Students	222 (46.93)	169 (35.73)	70 (14.80)	12 (2.54)	473
UG Students	151 (61.13)	68 (27.53)	20 (8.10)	8 (3.24)	247
TOTAL	**595 (49.58)**	**422 (35.17)**	**143 (11.92)**	**40 (3.33)**	**1200**

The table 8, with regent to a 362 faculty 44.20% of them has used Google and 3.31% of them have used Lycos search engine. Among 118 research scholars 52.54% of them have used Google search engine and 6.75% of them have used Lycos search engine. Out of 473 PG students 46.93% of them have used Google and 6.75% of them have used Lycos search engine. Out of 247 UG students151 (61.13%) of them have used Google and 8(3.24%) of them have used Lycos search engine.

TABLE 9: STATUS-WISE DISTRIBUTION OF RESPONDENT'S MODE OF LEARNING IT SKILLS

CATEGORY	SELF THOUGHT	TRIAL AND ERROR METHOD	GUIDANCE FROM FACULTY	GUIDANCE FROM LIBRARY STAFF	TOTAL
Faculty	62 (17.13)	95 (26.62)	85 (23.48)	120 (33.15)	362
Research Scholars	14 (11.86)	23 (19.49)	57 (48.30)	24 (20.35)	118
PG Students	173 (36.56)	48 (10.15)	100 (21.14)	152 (32.15)	473
UG Students	17 (6.88)	40 (16.19)	138 (55.88)	52 (21.05)	247
TOTAL	**266 (22.17)**	**206 (17.17)**	**380 (31.67)**	**348 (29.00)**	**1200**

Table 9 shows Status-wise distribution of respondent's mode of learning IT skills. With the total of 372 faculty members 120 (33.15%) respondents adopted guidance basis library staff; 95 (26.24%) respondents underwent trial and error method; 85 (23.48%) respondents learn by guidance from faculty and 62 (17.13%) respondents learn IT skills from their self thought. Out of Research scholars, 57 (48.30%) of them acquired IT skills from guidance from faculty; 20.35% of them underwent guidance from library staff; 19.49% of them acquire IT skills from trial and error method and 11.86% of them acquire IT skills from self thought. Out of 473 PG students 173 (36.56%) of them acquire IT skills from self thought; 32.15% of them learn IT skills by guidance from library staff; 21.14% of them acquired IT skills by guidance from faculty and 10.15% of them acquire IT skills from trial and error method. Out of 247 UG students 17 (6.88%) respondents adopted self thought; 40 (16.19%) respondents underwent trial and error method; 138 (55.88%) respondents acquire IT skills by guidance from faculty and 52 (21.05%) respondents acquired IT skills from guidance library staff.

TABLE 10 STATUS-WISE DISTRIBUTION OF RESPONDENTS OF SATISFACTION WITH USE OF ICT BASED RESOURCES AND SERVICES.

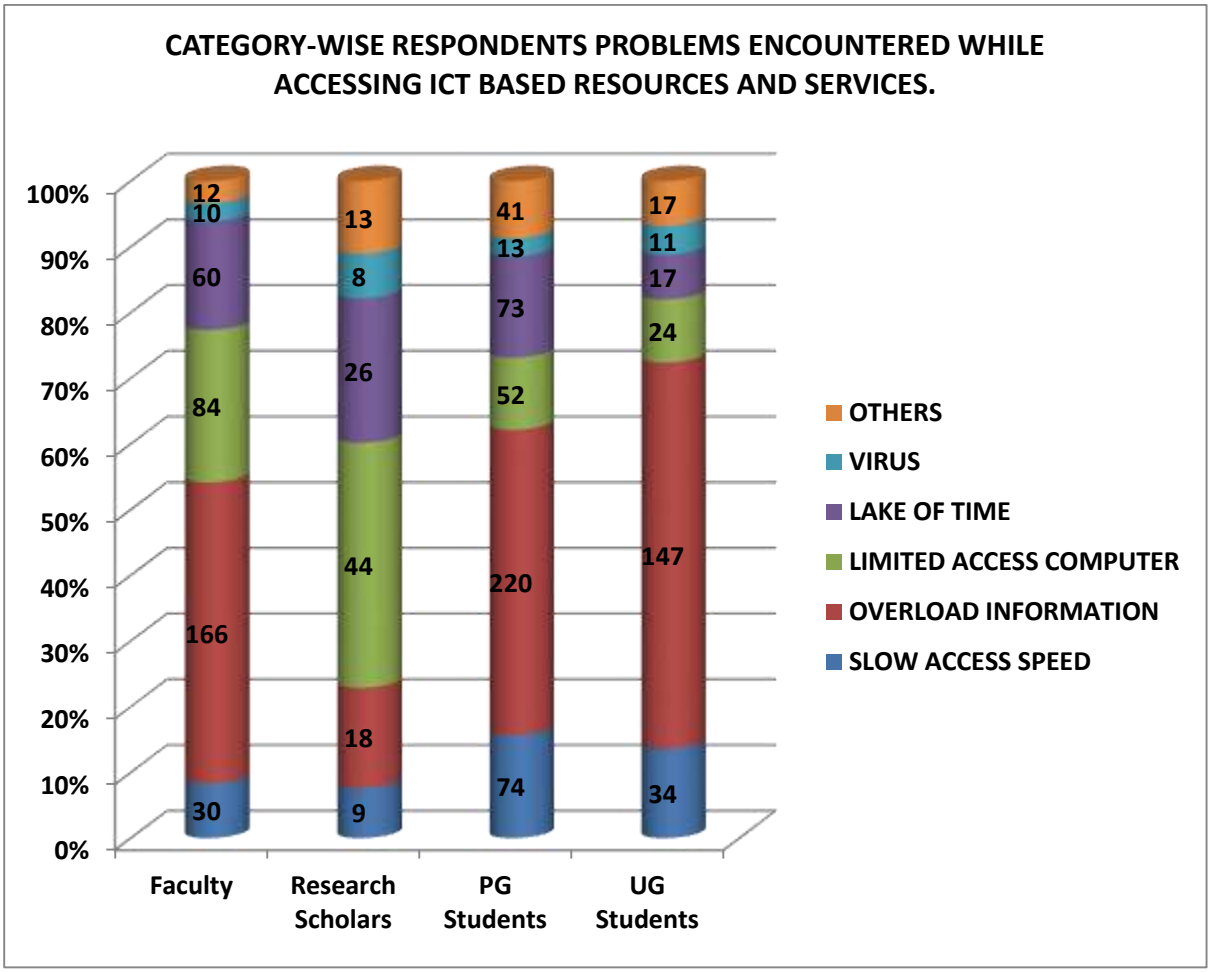
CATEGORY	EXCELLENT	GOOD	POOR	NO OPINION	TOTAL
Faculty	162 (44.76)	148 (40.88)	12 (3.31)	40 (11.05)	362
Research Scholars	54 (45.76)	46 (38.990	8 (6.78)	10 (8.47)	118
PG Students	263 (55.60)	173 (36.58)	10 (2.11)	27 (5.71)	473
UG Students	110 (44.53)	90 (36.44)	17 (6.88)	30 (12.15)	247
TOTAL	**589 (49.08)**	**457 (38.08)**	**47 (3.92)**	**107 (8.92)**	**1200**

Data represented in table 10 status-wise distribution of respondents regarding the usefulness of ICT based resources. It is clear that act of 1200 respondents, 589 (49.08%) respondents feel that it is excellent; 457 (38.08%) respondents fee that it is good; 47 (3.92%) respondents feel that it is poor and 107 (8.92%) respondents feel that no opinion.

TABLE 11 CATEGORY-WISE RESPONDENTS PROBLEMS ENCOUNTERED WHILE ACCESSING ICT BASED RESOURCES AND SERVICES.

CATEGORY	SLOW ACCESS SPEED	OVERLOAD INFORMATION	LIMITED ACCESS COMPUTER	LAKE OF TIME	VIRUS	OTHERS	TOTAL
Faculty	30 (8.29)	166 (45.86)	84 (23.20)	60 (16.57)	10 (2.76)	12 (3.32)	362
Research scholars	9 (7.63)	18 (15.25)	44 (37.29)	26 (22.03)	8 (6.78)	13 (11.02)	118
PG students	74	220	52	73	13	41	473

	(15.64)	(46.51)	(10.99)	(15.43)	(2.75)	(8.68)	
UG students	31 (12.55)	147 (59.51)	24 (9.73)	17 (6.88)	11 (4.45)	17 (6.88)	247
TOTAL	**144 (12)**	**551 (45.92)**	**204 (17)**	**176 (14.67)**	**42 (3.5)**	**83 (6.91)**	**1200**



A study of the data in table 11 indicates the Category-wise respondents problems encountered while accessing ICT based resources and services. Out of 1200 respondents 144 (12%) respondents have faced slow access speed; 551 (45.92%) respondents have faced over load information. 204 (17%) respondents have faced limited access to computer; 176 (14.67%) respondents have faced lake of time. 42(3.5%) respondents have faced virus and 42 (3.5%) respondents have faced other problems while accessing ICT based resources. Out of 362 faculty members 45.86% of them have faced overload information and 2.76% of them have faced virus as problem while accessing ICT based resources. Out of 118 research scholars 37.29% of them have faced limited access to computer and 6.78% of them have faced virus as problem while accessing ICT based resources. Among 473 PG students 46.51% of them have faced overload information and 2.75% of them have faced virus as problem in computers. With respect to 247 UG students 59.51% of them have faced overload information and 4.45% of them have faced virus as problem while accessing ICT based resources.

SUGGESTIONS

1. The library should take some steps for enhancing the speed of internet and timings of the library.
2. More ICT services should be provided.
3. The faculty members and the research scholars should refer to more electronic journals for getting the latest information
4. Computerization of all the activities of the libraries should be mode so as to cope with the new challenges.
5. The faculty members and the students try to avoid printed version of books because these may be out –dated.
6. There is need to introduce electronic document supply service by library.
7. There is a need to train the faculty members how to use of ICT.
8. Lastly, adequate fund should be provide from the concerned authorities to improve ICT services.
9. Proper planning is a must to improve ICT competences among the information professionals of the academic libraries of Virudhunagar District
10. The library authority should aware of the changes in ICT in the world.
11. The Government may recruit new ICT professionals.
12. For smooth management of libraries proper rules & regulations should be formulated as soon as possible and standards should be maintained.
13. Provide electronic resources like e-journals, bibliographic databases, full-text databases, CD-ROM databases, multimedia databases, and access to web-based resources, etc.
14. Sufficient funds should be made available by the authorities for library automation, development of digital resources, and application of ICT.
15. An arrangement should be made for regular ICT awareness program to all the departments/institutions so that every user will be able to take the advantages of ICT services.
16. Regular internet service should be made available.
17. More e-journals should be provided and the full text of the documents should be made available to the users.

CONCLUSION

From the above study, it is revealed that all the faculty member and students use of ICT based resources and service among the user of Arts and Science College in Virudhunagar District. ICT can be useful for learners of all kinds, because of the resources available on the internet, applications that make it possible to explore subjects and the possibilities of networking among learners and teachers. Training in ICT needs to be imported to both students and the faculty members of Arts and Science colleges of Virudhunagar District. The ICT based resources and services are now considered as most vital part of the library resources. The library professional should be always up to date to copy up with the study increase in information resources and services. From this study it is formed that, majority of the respondents (49.08%) have excellent awareness of the ICT based resources. Among the 1200 total respondents (58.59%) of them accessing ICT based resources by daily. It is

founded that (37.58%) of the respondents have used ICT based resources for their research purpose. It could be noted that out of the total 1200 respondents 649 (54.08%) respondents spend less than one hour per day. It could be noted that out of the total respondents 420 (35.00%) respondents have used ICT resources for their departments. It is found that (49.58%) of the respondents have used ICT base resources for their Google search engine. The results of the study indicate that the ICT facilities in the library are being well used by the students and faculty members.

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