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ICT and Internet Literacy Skills for Accessing to E-Resources available under N-LIST Programme : A Case Study of College Library Users of Barak Valley, South Assam

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ABSTRACT

The present study has been undertaken with a view to know the scenario of N-LIST Programme implementation and status of the ICT and Internet literacy skills amongst the College Library Users who have been mainly drawn from the ten selected college libraries of Barak Valley of South Assam to access E- Resources available under N-LIST Resources. The present work was carried out during January to May 2012. For that purpose, survey method was adopted, which comprises of administration of questionnaire, observation of the participants, and interview of some of the participants for knowing the opinion of the respondents in respect of usage of e-resources available under N-LIST Programme/ services for their academic and research activities.

The self designed questionnaire comprising of 19 questions has been distributed amongst the randomly selected 200 samples, out of which 153 respondents have responded. The present investigation is delimited to the randomly selected population of College Library Users who are regularly visiting their respective college library and using the Internet for accessing to the e-resources / web resources available under the N-LIST Programme of INFLIBNET. On the basis of filled up questionnaire received from the respondents, data has been analyzed and tabulated using SPSS Software. For data analysis percentage technique has been adopted. Due to paucity of space important findings have been enumerated in brief.

The paper highlights the important survey findings in respect of demographic profiles of college library users, their library visit pattern, e-resources use pattern and expectations of college library users from the N-LIST Programme through which the scholarly contents are made available to the library users. Besides this, some suggestions and recommendations to solve the impediments for non-implementation of N-LIST Programme and under utilization of e-resources have also been enumerated in brief.

Keywords: *ICT Awareness, Internet Literacy Skills , N-LIST Programme, E- Resources, INFLIBNET Centre, College Library , Barak Valley, South Assam , Assam University, Silchar*

1.   Introduction

Assam University, Silchar (AUS) is one of the Central Universities situated in Southern part of Assam in North Eastern India. The main reason behind the establishment of this university was primarily to attract the students in five districts which are under the jurisdictions of Assam University. It has as many as 57 undergraduate affiliated colleges, which have been trying to meet the intellectual and education interests in the region. The college libraries in this part of Northeast India try to cope up with the information explosion as more and more publications are coming up in electronic form. Most of these libraries have changed the traditional methods of providing information service with the application of ICT.

Information Communication Technology (ICT) is one of the important buzzwords of today's IT world. It has changed the society into information society and our way of life. It has been integrated in every walk of our life and its impact has been evident in railway, air reservations, banking and insurance sectors, postal services, biotechnology, bioinformatics. biomedical sciences, health care sector, telemedicine, media and communications teaching learning, library and information services, printing technology, e-resources, digitization of documents, digital library, library networking, e-commerce,& trade, entertainment, etc. etc. It has penetrated in everywhere and its make our life comfortable and easy. (Sinha 2011).

1.2   An Introduction to N-LIST Programme

The Project entitled "*National Library and Information Services Infrastructure for Scholarly Content (N-LIST)"*, being jointly executed by the UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi provides for i) cross-subscription to e-resources subscribed by the two Consortia, i.e. subscription to INDEST-AICTE resources for universities and UGCINFONET resources for technical institutions; and ii) access to selected e-resources to colleges. The N-LIST project provides access to e-resources to students, researchers and faculty from colleges and other beneficiary institutions through server(s) installed at the INFLIBNET Centre. The authorized users from colleges can now access e-resources and download articles required by them directly from the publisher's website once they are duly authenticated as authorized users through servers deployed at the INFLIBNET Centre. This is meant for extending e-resources/ e-content to college libraries across India.

N-LIST gives full text access to scholarly publications to its end users. Further subscribing to printed costly journals in different disciplines by individual college libraries has become neither possible nor feasible. Ever-increasing prices of journals accompanied with the shrinking budget of libraries, the college authority/parent bodies are forced to resort to the best alternatives. In order to achieve best performance in service, enable flexibility of access, and also to meet the requirements arising out of convergence of technologies, regular technological inputs are necessary to upgrade the network infrastructure and to ensure delivery of upcoming applications and content to the education. The UGC and INFLIBNET have joined hands with ISPs to meet these challenges. The N-LIST provides Internet bandwidth, a pre-requisite for delivery of scholarly content subscribed through the N-LIST Digital Library Consortium (www.inflibnet.ac.in).

1.21   *Components of N-LIST: There are four Components of N-LIST Programme*

The project has four distinct components, i.e. i) to subscribe and provide access to selected UGC-INFONET e-resources to technical institutions (IITs, IISc, IISERs and NITs) and monitor its usage; ii) to subscribe and provide access to selected INDEST e-resources to selected universities and monitor its usage; iii) to subscribe and provide access to selected e-resources to 6,000 Govt./ Govt.-aided colleges and monitor its usage; and iv) to act as a Monitoring Agency for colleges and evaluate, promote, impart

training and monitor all activities involved in the process of providing effective and efficient access to e-resources to colleges. The INDEST and UGC-INFONET are jointly responsible for activity listed at i) and ii) above. The INFLIBNET Centre, Ahmedabad is responsible for activities listed at iii) and iv) above. The INFLIBNET Centre is also responsible for developing and deploying appropriate software tools and techniques for authenticating authorized users.

1.22 Current Status of N-LIST Programme

As on **Nov 1 2012**, a total number of 2980 colleges have registered themselves with the N-LIST programme including 2730 Govt. / Govt.-aided colleges covered under the section 12 B/2F of UGC Act as well as Non-Aided colleges . Log-in ID and password for accessing e-resources has been sent to the authorized users from these 2730 colleges. All e-resources subscribed for colleges under the N-LIST Project are now accessible to these 2730 colleges through the N-LIST website (http://nlist.inflibnet.ac.in)

1.23 Members of N-LIST Programme

Followings are the beneficiary institutions :

i.   *Universities*: 100 universities covered under the Phase I and Phase II of the UGC-INFONET Digital Library consortium can now access to Web of Science subscribed by the INDEST-AICTE Consortium for the technical institutions (IITs IISc).
ii. *34, Technical Institutions (IITs, IISc, IISERs and NITs):* IITs, IISc, IISERs and selected NITs, i.e. core members of the INDEST-AICTE Consortium can now access to e-resources namely Annual Reviews, Project Muse and Nature (1 title) subscribed by the UGC-INFONET Digital Library consortium.
iii. *Colleges*: All college covered under section 12B/2F of UGC Act and Non Aided Colleges (except Agriculture, Engineering, Management, Medical, Pharmacy, dentistry and Nursing) can access to electronic resources subscribed by the UGC-INFONET Digital Library consortium as well as few selected e-resources that were found most appropriate for colleges including e-journals and e-books. These resources include more than 3100+ e-journals and 75,000 + e-books. All Non-Aided (except Agriculture, Engineering, Medical, Pharmacy, dentistry and Nursing)/ Colleges are requested to register themselves online.

1.24 Status of E-Resources Available under N-LIST Programme

Following E-Journals, E-Books and Online Databases are available under N-LIST Programme which are being extensively used by the college library users / university library users where these services are made available

Institute of Physics (18 titles)   http://journals.aip.org/
American Physical Society (10 titles) http://publish.aps.org/browse.html
Annual Reviews (33 titles)   http://arjournals.annualreviews.org/
Cambridge University Press (224 http://journals.cambridge.org/
titles)
Economic and Political Weekly http://www.epw.in/
(EPW) (1 titles)
Indian Journals (150 titles)   http://www.indianjournals.com/
Institute of Physics (46 titles)   http://www.iop.org/EJ/
Oxford University Press (206 titles) http://www.oxfordjournals.org
Royal Society of Chemistry (29 titles) http://www.rsc.org/Publishing/Journals/
EBSCOHOST (H. W. http://vnweb.hwwilsonweb.com/hww/jumpstart.jhtml

Wilson) (2800+ titles)

E-Books	
Cambridge Books Online (1000+ titles)	http://ebooks.cambridge.org
E-brary (70000+ titles)	http://site.ebrary.com/lib/inflibnet
EBSCoHost-Net Library (936 titles)	http://www.netlibrary.com/
Hindustan Book Agency (65+ titles)	http://hindustan.igpublish.com
Institute of South East Asian Studies(ISEAS) Books (382+ titles)	http://iseas.igpublish.com
Oxford Scholarship (902 titles)	http://www.oxfordscholarship.com/
Springer eBooks (1500+ titles)	http://link.springer.com.
Taylor Francis eBooks (1000+ titles)	http://inflibnet.etailer.dpsl.net.
Myilibrary-McGraw Hill (1124 titles)	http://lib.myilibrary.com/
Bibliographic Database	
MathSciNet	http://www.ams.org/mathscinet/
E-Resources for Universities	
Web of Science	http://isisknowledge.com
E-Resources for Technical Institutions (IITs, IISc, IISERs and NITs)	
Annual Reviews	http://arjournals.annualreviews.org/
Project Muse	http://muse.jhu.edu/
Nature	http://www.nature.com/

(Source: http://nlist.inflibnet.ac.in/eresource.php)

1.3 Objectives of the Study

N-LIST consortium is providing access to scholarly literature to the academic libraries particularly college libraries in the country. In order to understand the awareness of ICT and perception of college library users towards the usage of e-resources available under N-LIST programme , the present study has been made with the following objectives:

➢ To examine awareness of ICT to access E-Resources/E-Journals available under N-LIST programme;
➢ To understand the e-resources usage pattern and impact of N-LIST consortium on academic output of the college library users;
➢ To measure the frequency of access to the consortium;
➢ To know the level of satisfaction among the users;
➢ To draw opinions from the users towards N-LIST service;
➢ To examine the preference of N-LIST Services and preference of e-journals, e-books publishers;
➢ To ascertain the need for user orientation programme; and
➢ To examine the various suggestions put forward by the library Users for the improvement of Internet Services being provided by the college libraries of Barak Valley to access e-resources available under N-LIST Program/Consortium.

2. Review of Literature

For the present study the primary as well as the secondary source of literatures has been consulted. Some journal articles and theses have also been consulted. Previously many studies have been carried out in recent years on use of Internet in university library (Mishra and Satyanarayana, 2001) Internet for Libraries. (Kamlavijayan, 2001) ; Internet and its use in SJCE (Kumbar and Shirun , 2003); Internet usage by students and faculty members of Kuvempu University (Birader, Rajashekhar, and Sampat Kumar , 2004); Use of Internet by teachers and students in Shaheed Bhagat Singh College of Engineering

and Technology (Rajiv Kumar and Amritpal Kaur 2004); Internet use by the researchers in Punjab University, Chandigarh (Mahajan 2005) ; Internet use by the Research Scholars in University of Delhi (Madhusudan , 2007); Use of Internet in Engineering College of thee Districts of Karnataka State (Kumbhar and Vasunatha 2007) ; Sharma , Singh and Mishra, 2008 has also studied the usage pattern of Internet by the teachers and research scholars of Kurushetra University ; Use of Internet by the Students of Bidhan Chandra Krishi Viswavidyalaya (West Bengal) (Das and Basu (2009) ; and Use of Internet among the Research Scholars of the Faculty of Science, University of Allahabad (Devender Kumar and Shukla, 2009).

Sinha (2009) has also carried out a survey on specialized group of samples who belongs to scientific disciplines (Participants of Workshop on Basic Science Research) in terms of ICT and Internet awareness and observed the similar trends of finding towards awareness of ICT and Internet and utilization of E-Resources available under UGC-INFONET Programme. Rao (2010) in his study of Internet Use in Academic Library discusses the advantages of the Internet and its impact upon academic libraries. The practical application of email, Internet and other electronic media has been also described in brief and need of more application of ICT / computers in libraries has been emphasized. Rahman and Ali (2010) conducted a study on the access and utilisation of the Internet based library services available to the faculty members of Z.H. College of Engineering and Technology, Aligarh Muslim University. A number of studies have been conducted on Information Resources on the Internet for Higher Education and Research (Parekh, Harsha. 1999); Use of E-Resources by IT Professionals (Gireesh and Rajashekara, 2009) ; Use of Information Resources by the Researchers in the University Libraries in Karnataka (Gowda and Shivalingaiah,2009); Use and Impact of Digital Resources (Mendhe ,Taksande, and Taksande 2009; Use and Usage Statistics of Electronic Resources at Central Library , Tezpur University (Mishra and Gohain, 2010).

From the review of literature on the use of Internet, awareness of ICT and Internet, Usage of off-line and on-line e-resources (CD-ROM Databases and E-Journals) , it has been found that most of the study have been carried out in Northern India (Rajiv Kumar and Amritpal Kaur 2004; Singh, Bhupesh Kumar and Kulvir Kaur , 2006; Mahajan, 2005; Madhusudan , 2007 ; Sharma , Singh and Mishra, 2008 ; Rahman and Ali , 2010; and Southern India (Birader, Rajashekhar, and Sampat Kumar , 2004; Khumbar and Vasuntha Raju (2007) Rao, 2010 and Singson and Leeladharan 2010).

Most of the studies have been conducted on Internet Use pattern of the academic community and local population of Barak Valley (Sinha, 2004) ; Information Communication Technology (ICT) and Internet Awareness Amongst the College and University Teachers (Sinha 2008) ; participants of Workshop on Basic Science Research (Sinha 2009) , Sinha (2010) and Borthakur, Das and Gohain (2010), ICT and Internet Literacy for accessing to E-Resources available under UGCINFONET Digital Library Consortium in North Eastern Region of India (Sinha, 2011, Sinha 2012). Except one study carried out on the status and utilization of N-LIST Programme in South Assam (Bhattacharjee, Bhattacharjee and Sarmah , 2011) , no comprehensive and substantial studies have been carried out on the ICT Awareness, Internet Literacy Skills to access e-resources available under N-LIST Programme by the college library users of Barak Valley, South Assam.

3.   Research Methodology

The appropriate research methodology has to be adopted for conducting any study. In the present study survey method was adopted and questionnaire was used as data collection tool which was supplemented by interview of the librarian and observation of the college library infrastructure and services. The present investigation comprises of administration of questionnaire, observation of the participants, and interview of some of the respondents for knowing their opinion in respect of usage of e-resources available under

N-LIST Programme of INFLIBNET and also other Internet/ Web Resources for their day-to-day academic and research activities.

For the present study the sample were drawn from the undergraduate students, faculty and staff from the selected college libraries of Barak Valley of South Assam. This study covers the nine selected college libraries of Barak Valley which have been included under N-LIST Programme of INFLIBNET. In this study an attempt has been made to get the feedback from the college library users of the three district of Barak valley which are providing N-LIST services. The colleges covered under the present study are from the three districts of Barak valley. Cachar district is having four colleges, viz. Cachar C ollege, Gurucharan College, Woman College and Radhamadhab College. Haliakandi district is having two colleges, viz. Srikishan Sarda College and Lala Rural College whereas three colleges viz., Nabin Chandra College, Karimganj College and Rabindra Sadan Girls' College are located in Karimganj district of South Assam. The study is mainly based on the survey of the college library users.

The primary data has been collected from the college library users using questionnaire. In this process of collecting the data, the students, staffs, faculty members and research scholars were interviewed personally to cover the gaps in the questionnaire and to clear doubts. Besides this, the secondary sources of information like annual reports etc were also consulted to collect relevant information for the study.

The samples comprised of College Library Users (Faculty Members, Under-Graduate and Staff members) who were mainly drawn from the nine selected colleges under the study. As per the research design altogether 200 number of library users were selected for the present study. The self –designed close-ended questionnaire comprises of 19 questions has been randomly distributed among the selected library users . The questionnaire was designed keeping in view of the objectives of the study to examine and evaluate the status of usage of N-LIST programme services for accessing to E-Resources and library Usage Pattern of the college library. In some cases Interview and Observation of respondents was also carried out to know the status of ICT awareness to use Internet and access E-Resources available under N-LIST Programme. The filled up questionnaires have been collected from the respondents for the data analysis and interpretations. On the basis of filled up questionnaire the data has been analysed and tabulated using SPSS .For data analysis only frequency/ percentage technique has been adopted.

3.2   Hypothesis Framed

1. College Library Users may not be fully aware of N-LIST services provided by INFLIBNET.

3.3   Delimitation of Study

The present study was delimited to 09 selected college library users of Barak Valley which is Comprising of Cachar College; Gurucharan College; Woman College; Radhamadhab College; Srikishan Sarda College; Lala Rural College; Nabin Chandra College; Karimganj College; and Rabindra Sadan Girls' College. During the survey we came to know that the although they are member but N-LIST programme has not been implemented in the Gurucharan College but the Gurucharan College is in the process of acquiring the required ICT infrastructure for providing these services.

4.   Data Analysis and Interpretations

4.1   Distribution of Questionnaire and Responses Received from the Respondents

The questionnaire has been distributed to the selected respondents (library users) of eight colleges which are affiliated to Assam University, Silchar and responses have been collected personally. There are total

200 sample of questionnaire has been distributed among eight different colleges under Assam University, Silchar. (Fig-1)
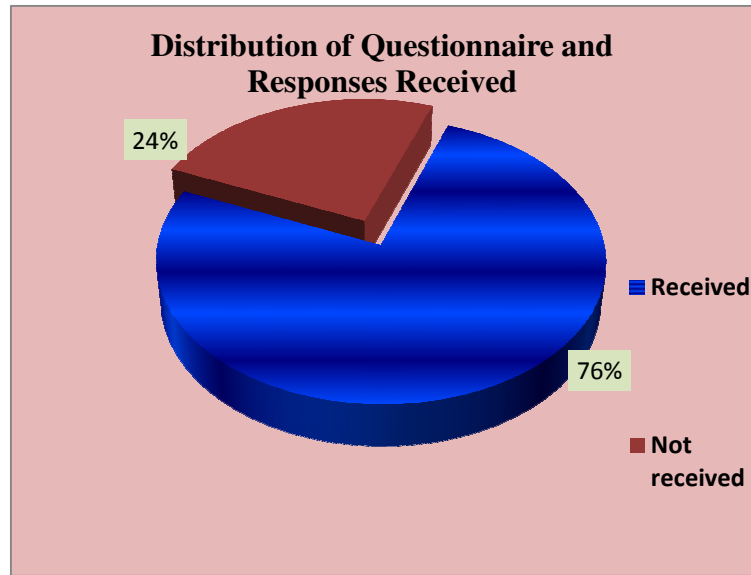

Figure -1 Distribution of Questionnaire and Responses Received

Fig-1 shows that out of 200 questionnaires distributed, 153 questionnaires have been received whereas 47 (23.5%) respondents did not respond. Therefore, the response rate is 76.5%.

4.2 College Wise Distribution of Respondents

The present study includes a response received from all the eight colleges having N-LIST services and which is affiliated to Assam University, Silchar. The college wise distribution of respondents have been shown in Fig-2 .Out of 200 sample , altogether 153 respondents have responded .
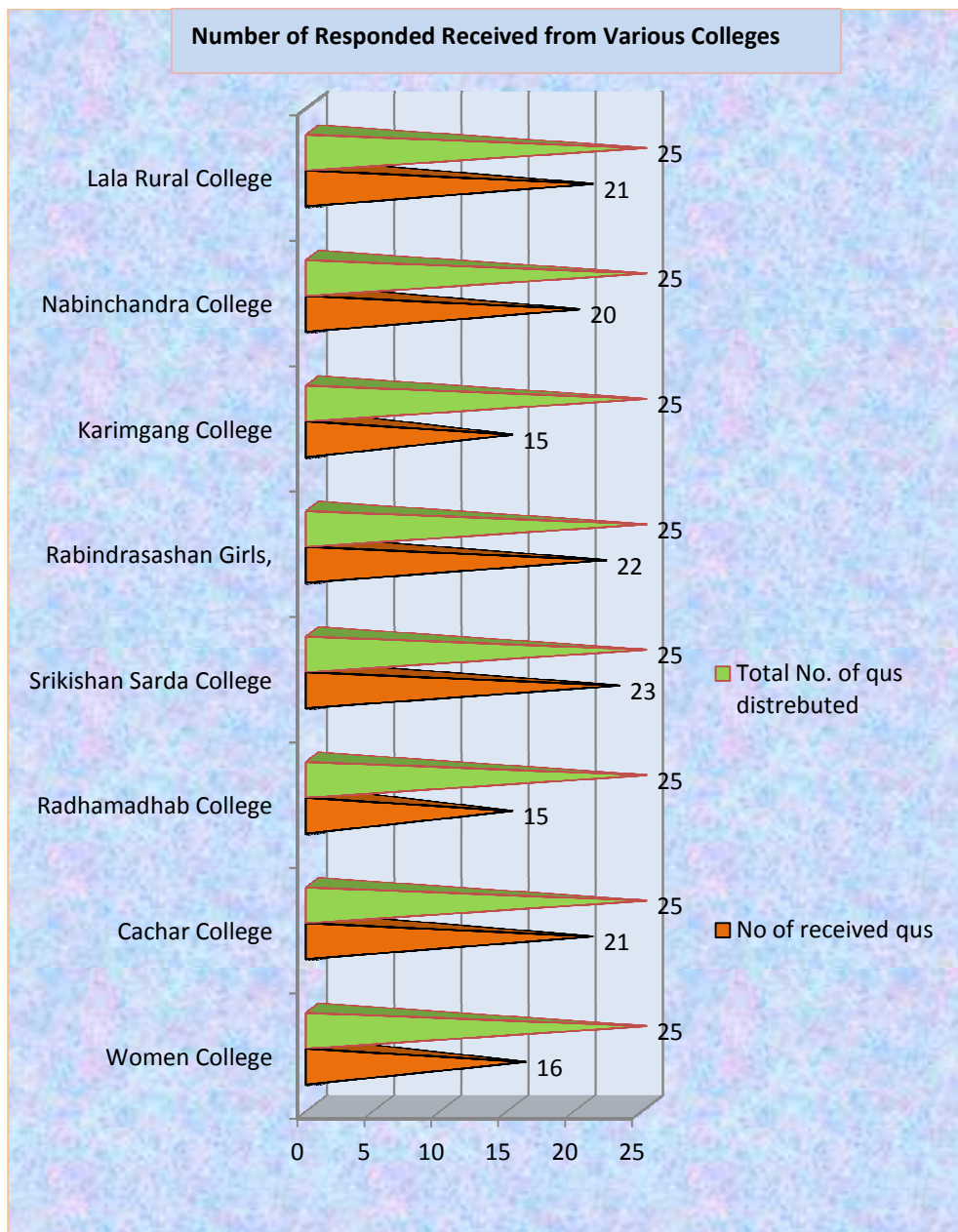
Figure-2: College Wise Distribution of Respondents and Number of Responses Received

From the Fig-2, it is evident that out of 153 respondents 23 (15%) respondents are from Srikishan Sarda College which is followed by 22 (14.4%) respondents are from Rabindra Sashan Girls College. Further 21 (13.7%) respondents are also from Cachar College and Lala Rural College each, whereas 20 (13.1%) respondents are from Nabinchandra College, 16 (10.5%) respondents are from Women College and 15 (9.8%) respondents are from Radhamadhab College and Karimganj College each which indicates that the maximum number of responses have been received from Srikishan Sarda College in comparison to Radhamadhab College and Karimganj College.

4.3   Personal Background of the Respondents

4.31   Sex-Wise Distribution of Library Users

The present study includes a responses received from both male and female respondents of all the eight colleges having N-LIST services and which is affiliated to Assam University, Silchar. Figure -3 shows the appropriate number of questionnaire received from both male and female respondents.

Gender analysis shows that out of 153 respondents, 81 (52.9 %) respondents belong to male category whereas 72 (47.3 %) respondents are from the female category a participant (Graph and Table-3) which indicates that the awareness of N_LIST services and access to E-resources is comparatively lesser in female participants.
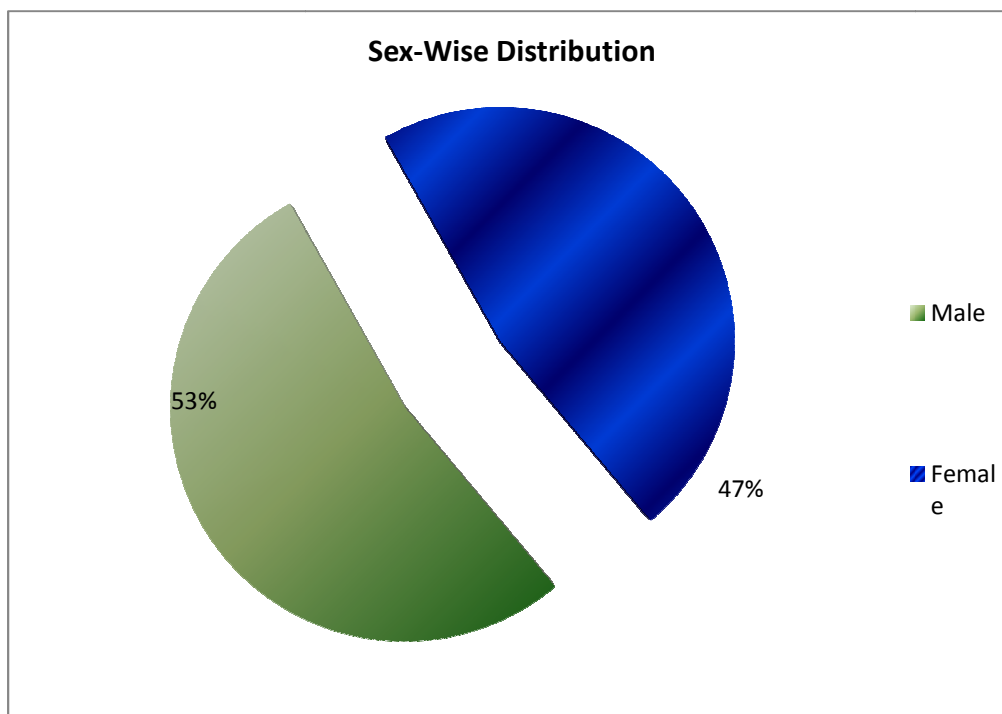

Figure 3: Sex-Wise Distribution of Library Users

4.4 Age Wise Distribution of Respondents

The age of the respondents is divided into various age groups and the data obtained from the respondents are shown in Figure-4. Age - Group wise analysis shows that maximum of 98 (60.3 %) respondents belongs to 16 to 25 Years age group which is followed by 24 (15.7 %) respondents for 26-35 Years and 19 (12.4 %) respondents fall under the age group of 36-50 years whereas 17 (11.1%) belongs to age group of 51 and above which shows that majority of respondents belong to younger generation.76% respondent belongs to age group of 16-25 whereas 28% respondents are above 36 years (Figure-4) The finding indicates that usage of E-journals/ E-resources are more popular amongst the younger generation people and inclination of elderly people is comparatively lower for Internet access. (Graph and Table-4). Therefore there is a need to popularize the usage of Internet and E-journals / resources amongst the elderly people who are hesitant in using ICT/ Internet for academic purposes.
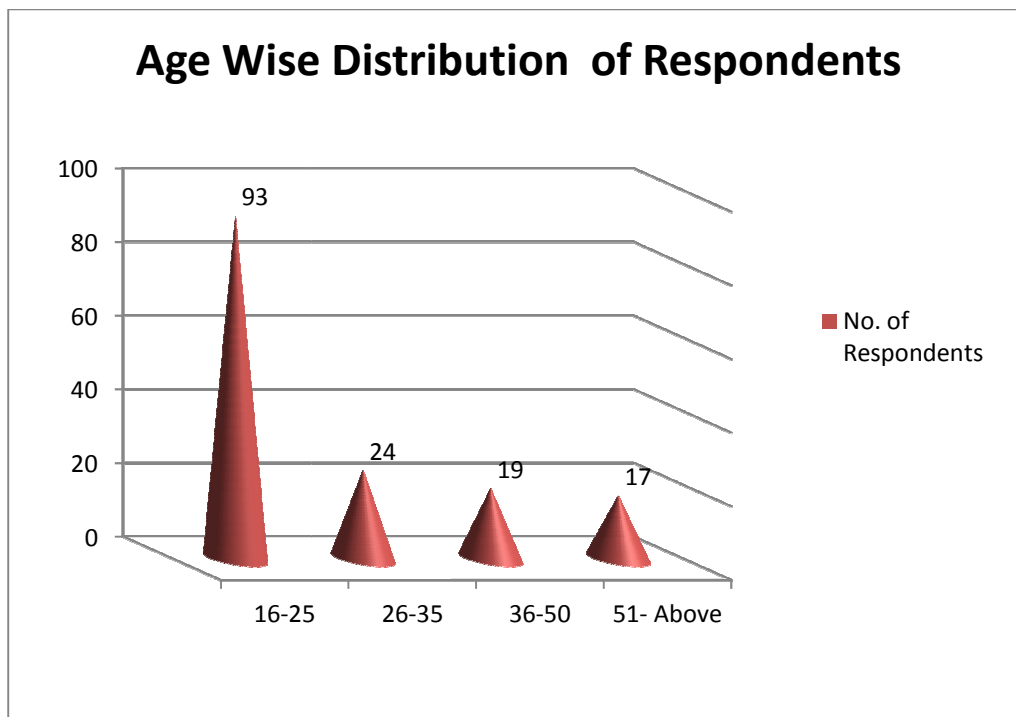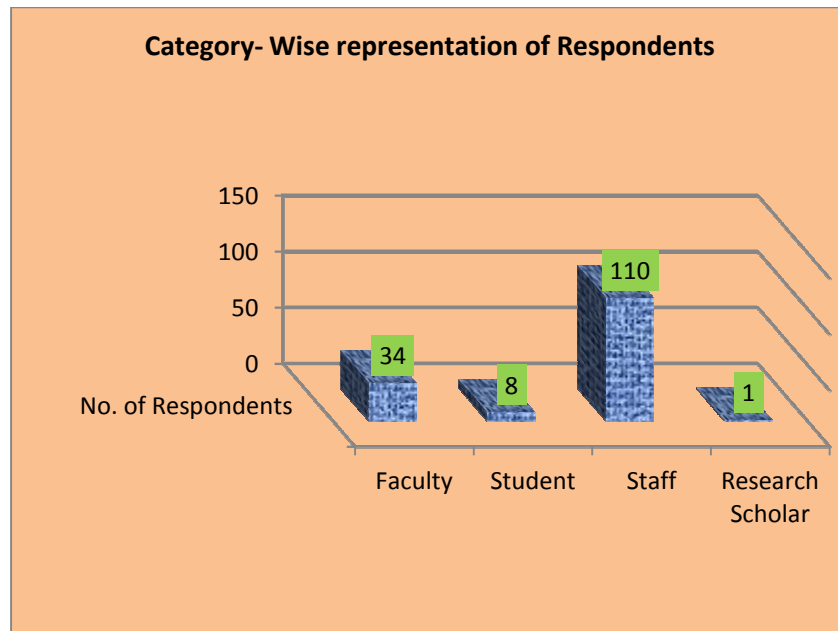
Figure-4: Age wise representation of respondents

4.5 Category Wise Distribution of Respondents

In this study library users include four main types and questionnaire is distributed according to the research design. The numbers of received questionnaire along with age groups is shows in Figure - 5.

Figure - 5 shows the category wise distribution of the respondents which comprises of students, faculty, staff and research scholars. From the survey findings as shown in Table-5, it is clear that, out of 153 respondents, 110 (71.9%) belongs to students followed by 34 (22.2%) belongs to faculty members whereas 8(5.2%) belongs to staff and 1(0.7%) research scholar. Students (110=71.9%) are maximum in number which is followed by faculty members (34=22.2%), staff (8=5.2%) whereas only one (0.7%) respondent is research scholar who may be faculty members and who might be pursuing research.

(Source: Primary data)

Figure -5: Category Wise Distribution of Respondents

B. Status of ICT Infrastructure at College Libraries

4.7   Availability of Computers for Accessing N-LIST Services

In this present study mainly nine colleges had been included, but one college (Gurucharan College, Silchar) has been not included as its automation process has not yet started. The number of computer available in various college libraries varies from library to library which depends upon the availability of financial assistance from UGC or other sources.

Table -1: Availability of Computers in College Libraries (N=8)

Name of College	Total no of Computers
Srikishan Sarda College	16
Rabindrasashan Girls,	21
Cachar College	15
Lala Rural College	23
Nabin Chandra College	22
Women College	15
Radha Madhab College	20
Karimganj College	21

(Source: Primary data)

Table -1 shows that maximum number of computers i.e.11-20 (78=50.9%) are available in college libraries which is followed by 52 (33.9%) colleges having computer in between 6-10 whereas 23(15.8%) colleges are having 21-30 numbers of computer which indicates that 23(15.8%) computers are available in Lala Rural College which is significant.

4.8 Availability of Internet Connectivity / Facility in College Libraries

To access the N-LIST services, Internet facility must be there. The survey finding shows that out of 153 respondents , all have informed that Internet facility is available in their colleges to access e-resources which have been made available under N-LIST Programme which indicates that all colleges of Barak Valley except Gurucharan College , Internet facility has been made available for college library users.

Table-2 Status of INTERNET Facility available in College Libraries (N=153)

Frequency	No. of Respondents	Percentage (%)
Yes	**153**	**100.0**
No	0	0
Total	153	153

(Source: Primary data)

Table -2 shows that all College Libraries are having Internet facility to access e-resources and Internet services which is very encouraging to know that library users from this remote area is no longer lagging behind the rest of the country in respect of Internet services and accessing facility of N=LIST Services.

C.   Internet Literacy Skills amongst College Library Users

4.91 Internet Literacy amongst College Library Users

N-LIST services can only be access through Internet. So user awareness towards Internet is very important. Therefore, question was asked to the respondents and the responses received is shown in Table -3

Table-3: Internet Literacy in College Libraries (N=153)

Category of Internet Users	No. of Respondents	Percentage (%)
Novice	**71**	**46.5**
Intermediate	56	36.6
Expert	26	16.9
Total	153	100

(Source: Primary data)

Table -3 shows that all the respondents are (100%) aware of Internet. Out of 153 respondents, 71(46.5%) respondents are novice and 56 (36.6%) are having good knowledge of Internet (Intermediate) whereas only 26 (16.9%) are expert in using Internet. The study reveals that Internet awareness/Training Program should be organised by the college libraries to enhance Internet Literacy.

4.92   Frequency of Using Internet

The frequency of visiting library and using Internet by the library users are shown in the Table -4 which reveals that most of the respondents 77 (50 %) access Internet on daily basis whereas 44 (28.8 %) respondents access Internet on at least once in a week, 23 (15 %) respondents access Internet on bi-week

basis. Moreover, 4 (2.6%) respondents access Internet on fortnightly basis which is followed by 2 (1.3%) on monthly basis and 3 (2%) did not access Internet regularly.

Table -4: Frequency of Using Internet Facility by Library Users (N=153)

Frequency of Using Internet	No. of Respondents	Percentage (%)
Daily	**77**	**50.3**
Weekly	44	28.8
Bi-weekly	23	15.0
Fortnightly	4	2.6
Monthly	2	1.3
Not Regularly	3	2.0
Total	153	100.0

(Source: Primary data)

4.93   Purpose of Accessing Internet

Table -5 shows that the library users have ranked various Internet Services on the basis of their requirements. Primarily Internet is being used by the college library users for upgrading their knowledge (73=47.7%) which ranks at first place which is followed by email facility (82=53.6%) and social networking sites (57=37.3%) on second and third place respectively whereas Internet is used for entertainment by 26 (17.0%) respondents which ranks at 4th position and only few respondents used Internet as Luxury item (Rank-5) to show in the society.

Table-5: Purpose of   Using Internet by the Respondents (N=153 Each)

Frequency	Rank 1	Rank 2	Rank 3	Rank4	Rank 5	NR	Total
Upgrade Knowledge	**73 (47.7%)**	39 (25.5%)	23 (15.0%)	0 (0%)	0 (0%)	18 (11.8%)	153 (100%)
Email Service	29 (19.0%)	**82 (53.6%)**	33 (21.6%)	0 (0%)	0 (0%)	9 (5.9%)	153 (100%)
Access to Social Network Site	50 (32.7%)	20 (13.1%)	**57 (37.3%)**	0 (0%)	0 (0%)	26 (17.0%)	153 (100%)
Entertainment	0 (0%)	0 (0%)	0 (0%)	**26 (17.0%)**	3 (2%)	124 (81%)	153 (100%)
Luxury	0 (0%)	0 (0%)	0 (0%)	1 (0.8 %)	**4 (2.6%)**	148 (96.7%)	153 (100%)

(Source: Primary data)

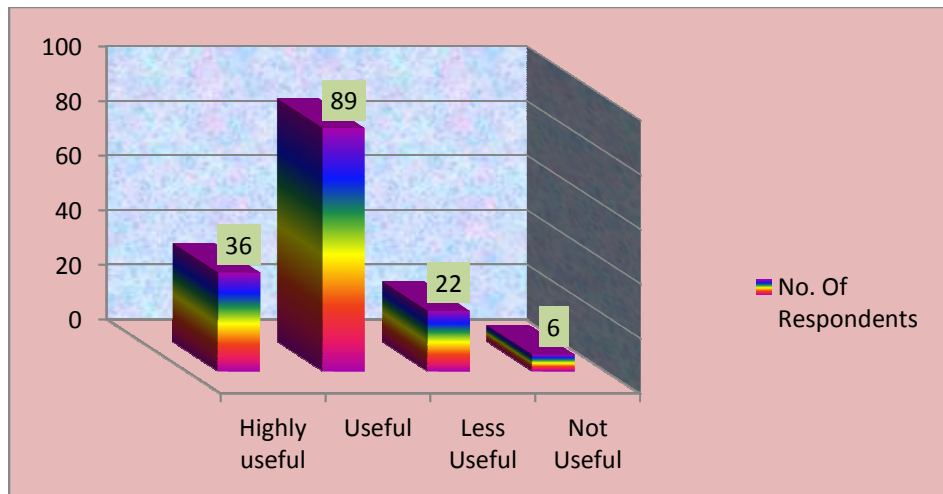*4.94 Usefulness of e-Resource available under N-LIST*

Figure -6: Usefulness of E-Resource

In this information age e-resource plays an importance role for academic and research. The survey findings reveals that out of 153 respondents, 89 (58.2 %) library users feel e-resource are useful which is followed by 36 (23.5%) respondents who have rated the e-resource as highly useful whereas 22 (14.4%) respondents say that e-resource are less useful and very few (6=3.9%) library users feels e-resource are not useful to meet their purpose which might be due to their ignorance and lack of awareness and training for accessing to e-resources and Internet (Figure -6).

D. **Awareness of N-LIST Programme and Services**

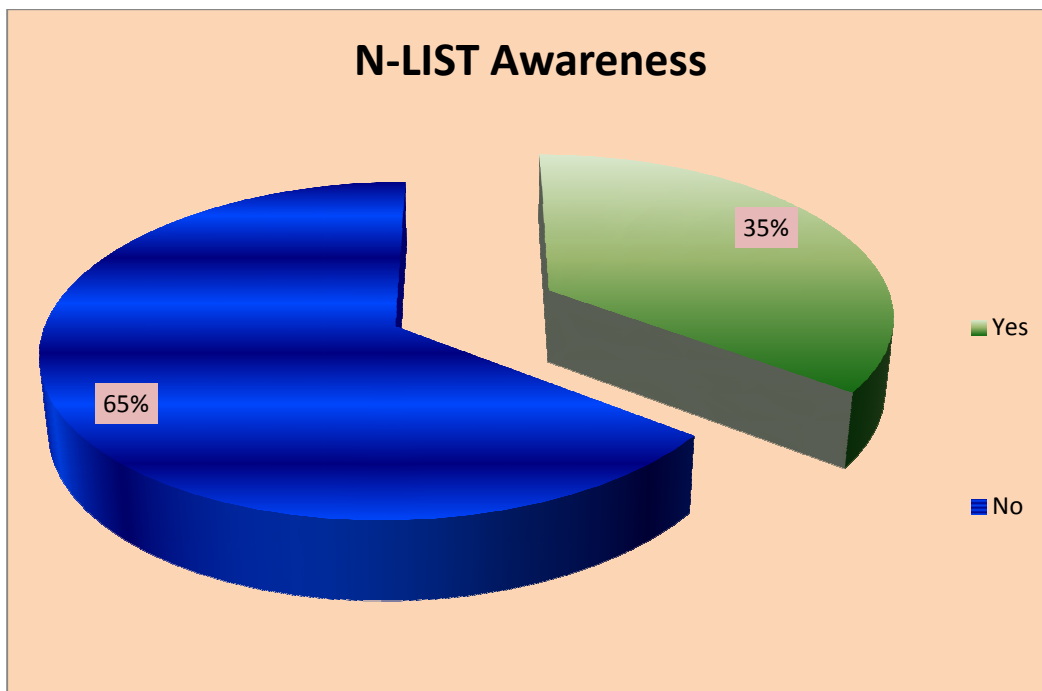**4.95** *Awareness of N-LIST Awareness*

Figure-7: Awareness of N-LIST Awareness (N=153)

From the Figure-7 it is evident that out of 153 respondents, 54 (35.3%) of respondents are well aware of N-LIST Programme and service offered by the INFLIBNET for college library users whereas maximum number (99= 64.7%) are not aware of N-LIST service, which shows that the awareness level for N-LIST Programme and Services is very much less amongst the college library users which needs proper attention by the college librarians and INFLIBNET to take necessary measures to enhance the awareness level of college library users for make maximum utilization of N-LIST programme and services

4.96   Usefulness of N-LIST

From the survey finding it is found that 54(35.5%) respondents are aware of N-LIST and the out of which the services of N-LIST is found useful by the maximum number of respondents (32=59.3 %) and highly useful by 7 (12.9 %) respondents whereas only 1 (1.8 %) have rated as less useful. A good number of respondents (14 = 25.9%) have not responded (Figure -8).
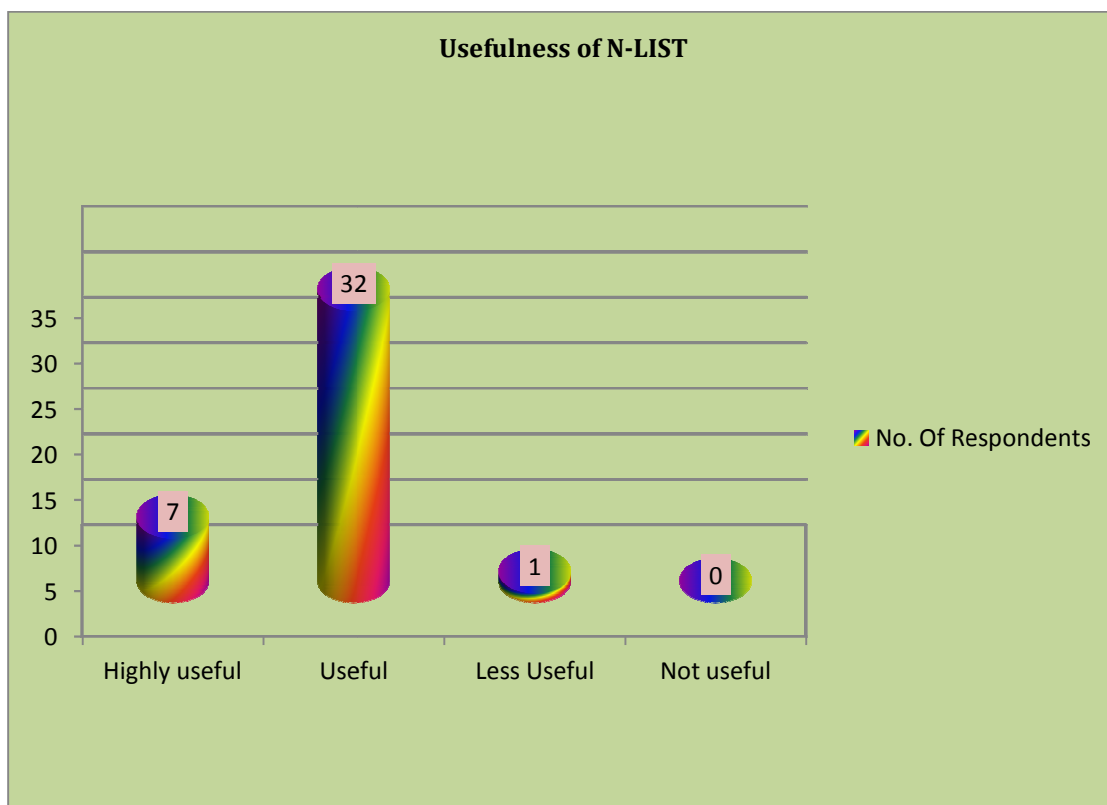

Figure- 8: Usefulness of N-LIST

4.97   Frequency of Accessing N-LIST Services

From the Figure-9, it is evident that out of 54 respondents, 28 (51.8%) respondents use N-LIST service for less than 5hrs a week whereas 9 (16.6%) respondents use N-LIST service from 6 to 10 hrs a week while only 3(5.5%) respondents use N-LIST service rarely and 14 (25.9%) respondents did not provide response.

4.98   N-LIST Orientation Program

Orientation program is necessary to impart training for searching skills and accessing to e-resources available under N-LIST Programme and services. It may be utilize to highlight the importance of information to develop knowledge for better use of any new program or services. N-LIST orientation program also provide the overall knowledge of these services (Figure-10).

The survey findings shows that out of 153 respondents, only 6 (3.9%) respondents attended N-LIST orientation program whereas 34 (22.2%) respondents have not got an opportunity to attend N-LIST orientation program and 113 (73.9%) respondents did not provide response which needs immediate attention of the college authority and INFLIBNET to organize User Awareness Programme/ Orientation program to access N-LIST services by the college library users (Figure-10).
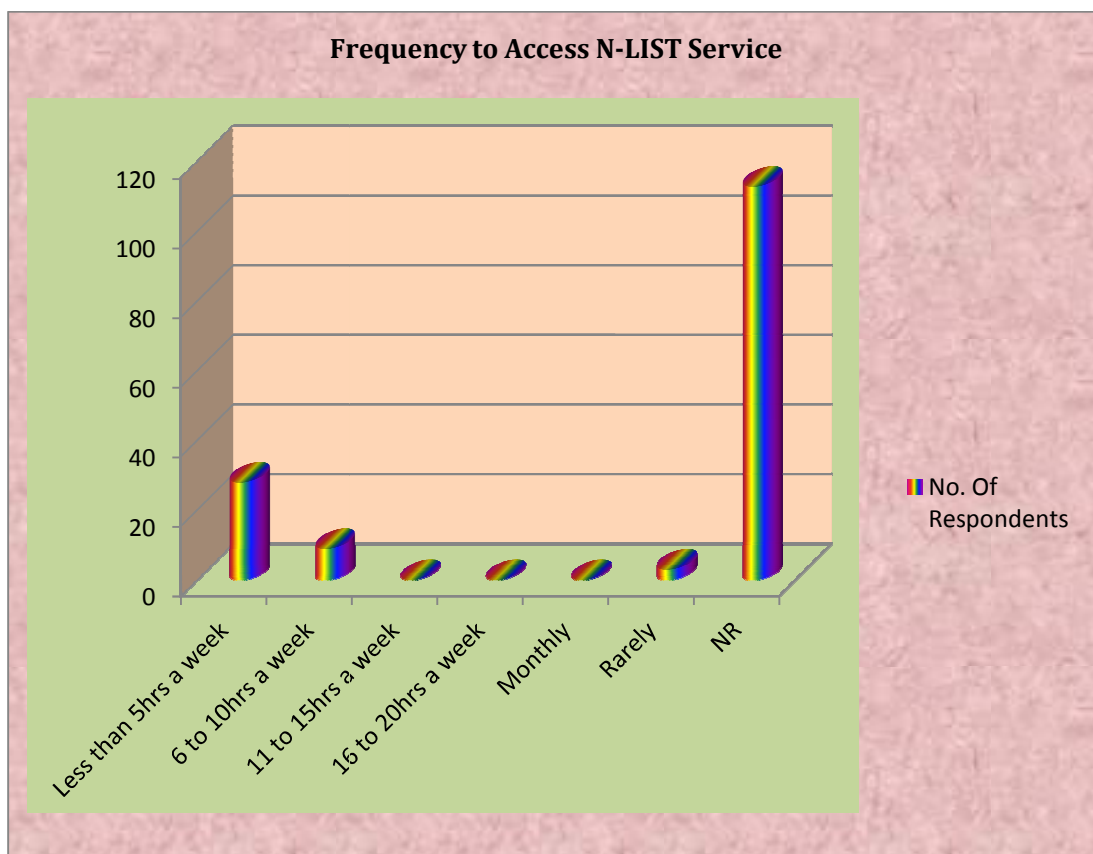

Figure-9: Frequency to Access N-LIST services

4.991   Provision of User Awareness / Orientation Programme for N-LIST Services

From the Figure-11, it is clear that out of 40 respondents, all 40 (100%) respondents feels that there is a need to organized N-LIST training program for the college library users . This may be due to that all library users feel that N-LIST is very useful for the academic purpose and for its proper utilization, users awareness training is necessary to conduct at regular intervals.
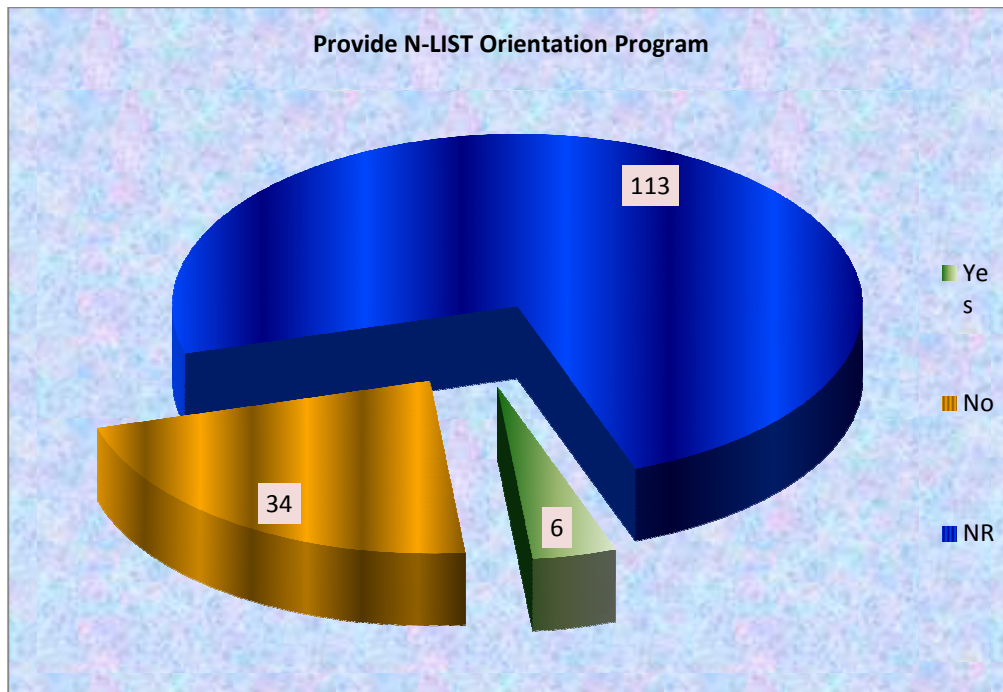
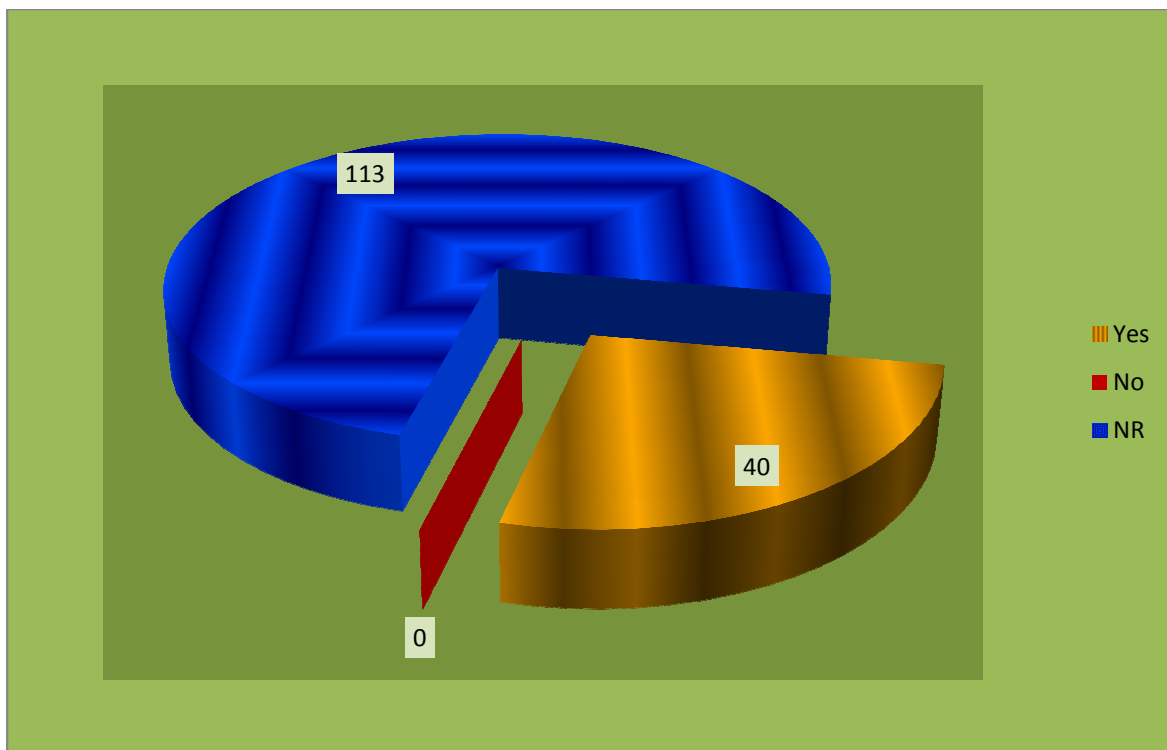Figure-10: Provision of User Awareness / Orientation Program for N-LIST Services

Figure-11: Need to Organise N-LIST Training Program

4.992   Preference of e-Journal Publisher under N-LIST

Under N-LIST consortium services various E-journal publisher provides services for various subject related journal, which can be freely access.

Table- 6: Preference of E-Journal Publishers (N=71)

Publishers	No of Respondents Using N-LIST Resources	Rank
Oxford University press	15 (27.8%)	1
Mc Graw Hill	14(25.5%)	2
Cambridge University Press	8 (14.8 %)	3
Bibliographic Database	6 (11.1%)	4
Annual Reviews	5 (9.2%)	5
American Institute Of Physics	3 (5.6%)	6
H.W Wilson	3 (5.6%)	7
Institute of physics	3 (5.6%)	8
Oxford Scholarship	3 (5.6%)	9
Net Library	3 (5.6%)	10
Economic and Political Weekly	2 (3.8%)	11
MathSciNet	2 (3.8%)	12
Business Full text	2 (3.8%)	13
e-bray	1 (1.8%)	14
Royal Society of Chemistry	1 (1.8%)	15

The survey result as shown in Table- 6 reveals the ranking of e-resource publishers. Oxford University Press , Mc Grow Hill Publisher and Cambridge University Press are more popular amongst the other publishers.

4.993   Problems faced by the Respondents to Access Internet Facility

Figure -12 reveals that 34 (22.8%) respondents experienced difficulty to access Internet facility while 26 (17%) users do not face any problem in accessing to Internet. But majority of the respondent 80 (52.2%) have not responded.

4.994   Problems faced by Respondents to Access Internet Facility in College Libraries

Figure-13 shows that majority of respondents face problems due to slow speed of Internet which is followed by problem in Internet connectivity, lack of printing facility and privacy problem in accessing N-LIST Services.
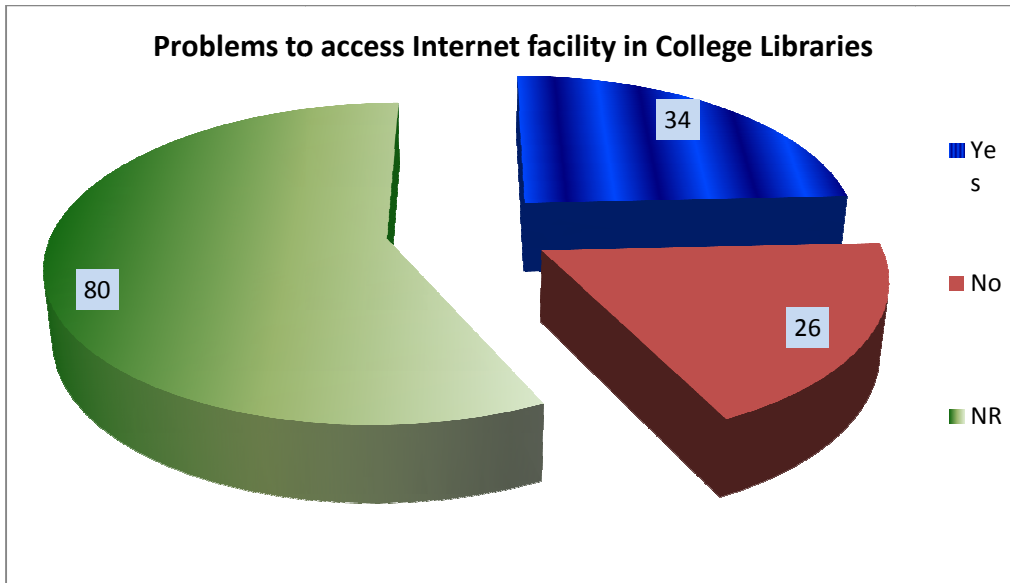
Figure-12: Problems faced by the Respondents to Access Internet Facility in College Libraries
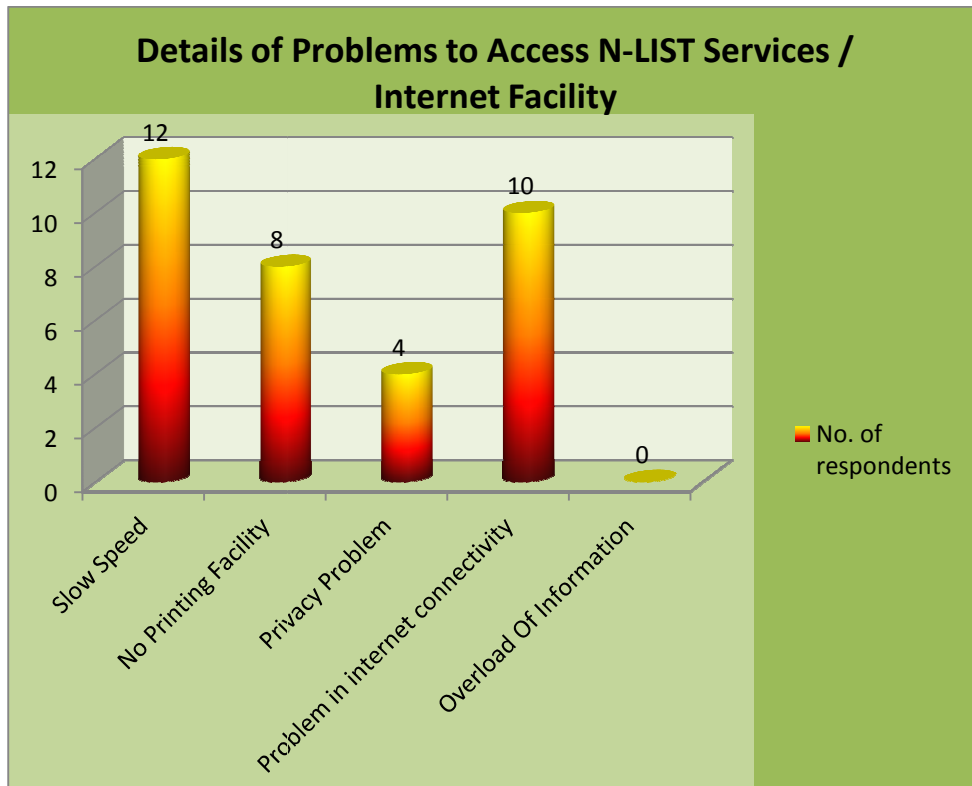

Figure-13: Details of problem to access Internet Facility in College Libraries

4.995   Suggestions to Improve N-LIST services / Internet Services

Table -7, shows that majority of the respondents (34 =62.9%) have suggested to organise more N-LIST Awareness Training Program which is followed by 27(50%) advocated for Internet connectivity to the departments whereas 22 (40.7%) feels that regular power supply may be the solution for uninterrupted access to Internet or N-LIST Services.

Table-7: Suggestions to Improve N-LIST Services / Access to Internet (N= 54)

Frequency	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	NR	Total
Need of more N-LIST Awareness Training	**34 (62.9%)**	13 (14%)	1 (1.8%)	0 (0%)	0 (0%)	0 (0%)	6 (11.1%)	54 (100%)
Internet Connectivity to Department	19 (35.1%)	**27 (50%)**	3 (5.5%)	0 (0%)	0 (0%)	0 (0%)	5 (9.2%)	54 (100%)
Regular Power Supply	1 (1.8%)	6 (11.1%)	**22 (40.7%)**	4 (7.4%)	0 (0%)	0 (0%)	21 (38.8%)	54 (100%)
More number of terminals	0 (0%)	4 (7.4%)	0 (0%)	**8 (14.8%)**	0 (0%)	0 (0%)	42 (77.8%)	54 (100%)
Provide separate hall	0 (0%)	0 (0%)	0 (0%)	0 (0%)	**1 (1.8%)**	0 (0%)	49 (98.2%)	54 (100%)

5   Important Findings, Suggestions and Recommendations

The present study was delimited to affiliated colleges of Assam University in Barak Valley where N-LIST service is available. Hence there is need to know in detail the problems which is related with the retrieval of N-LIST E-journals, E-books and E-databases and offer some suggestions for effective and efficient utilisation of e-resources available under N-LIST programme of INFLIBNET.

Followings are some of the major findings of the study:

➢ The finding shows that out of 153 respondents , 52.9 % respondents are male whereas 47.3% respondents are female which shows that in comparison to female, male respondents are more aware of N-LIST Services provided by INFLIBNET.

➢ From the study it is found that N-LIST service has been used mostly by the younger generation. Survey finding reveals that 60.8% respondents fall under the age group of "16-25" which is followed by 15.7% respondents who are between the age group of "26-35", whereas 12.4% of respondents are at the age of "36-50", 11.1% of respondents belong to age group of "51-Above"which shows that majority of respondents belong to younger generation.76% respondent belongs to age group of 16-25 whereas 28% respondents are above 36 years.

➢ The survey result represents that all Colleges under study and which is affiliated to Assam University, Silchar are having Computer labs. Result shows that maximum number of computers (50.9%) is available in college libraries which are followed by (33.9%) colleges having computer.

➢ All College libraries which are affiliated to Assam University, Silchar are having Internet facility which is very encouraging.

➢ It is found from the study that all respondents are well aware of Internet. Table -9 shows all respondents are (100%) aware of Internet. (46.5%) respondents are novice, (36.6%) are having good knowledge of internet (Intermediate) whereas only (16.9%) are expert in using Internet. The study reveals that Internet Awareness Training Program should be organised to enhance Internet Literacy.

➢ The survey result represents that most of the respondents (50 %)access Internet on the daily basis whereas (28.8 %) respondents access Internet on at least once in a week, (15 %) respondents access Internet on bi-week basis. Moreover, (2.6%) respondents access Internet on fortnightly basis which is followed by (1.3%) on monthly basis and (2%) did not access Internet regularly .

➢ The study found that Internet is used for upgrading knowledge which ranks at first place which is followed by email and social networking sites whereas Internet is used for entertainment also and only few respondent uses Internet for Luxury. Finding shows that the library users have ranked various Internet Services. Internet is used for upgrading knowledge (47.7%) which ranks at first place which is followed by email (53.6%) and social networking sites (37.3%) whereas Internet is used for entertainment (17.0%) which ranks at 4th position and only few used Internet for Luxury (Rank-5).

➢ The survey result represents that most of the library users feel e-resource are highly useful. Again some respondents say that e-resource is less useful and very few library users' feels e-resource is not useful to meet their purpose. The survey result shows that (58.2 %) library users feel e-resource are useful which is followed by (23.5%) respondents, according to whom e-resource are highly useful. Again (14.4%) respondents say that e-resource are less useful and (3.9%) library users feels e-resource are not useful to meet their purpose.

➢ The study found that very less number of respondents is aware of N-LIST service whereas majority respondents are not aware of N-LIST service, which shows very less number of N-LIST awareness by the college library users. From the Table -13, it is clear that (35.3%) of respondents are aware of N-LIST service whereas (64.7%) respondents are not aware of N-LIST service, which shows very less number of N-LIST awareness by the college library users.

➢ The study reveals that maximum number of respondents feel that N-LIST service is useful to some extent whereas only few respondents feels that N-LIST service is highly useful . It was found that (59.3%) of respondents feel that N-LIST service is useful whereas (12.9%) respondents feel that N-LIST service is highly useful.

➢ It is found from the study that maximum number of respondents use N-LIST service for less than 5hrs a week whereas some respondents use N-LIST service 6 to 10hrs a week while very few respondents use N-LIST service rarely. It is found that (51.8%) respondents use N-LIST service for less than 5hrs a week whereas (16.6%) respondents use N-LIST service 6 to 10hrs a week while only (5.5%) respondents use N-LIST service rarely.

- The study reveals that only a few respondents attended N-LIST orientation program and majority of the respondents did not get N-LIST orientation program.. It was observed that only 3.9% respondents attended N-LIST orientation program whereas 22.2% respondents did not attend N-LIST orientation program and (73.9%) respondents did not provide any response which needs immediate arrangement of Orientation program to access N-LIST services by the college library users.

- The study found that, all respondents feels there is a need of N-LIST training program. It was observed that all (100%) respondents feels there is a need of N-LIST training program. This may be due to that all library users feel that N-LIST is very useful for the academic purpose.

- From the study it is found that Oxford University press is given first rank, 2nd rank is given to Mc Graw Hill, 3rd to Cambridge University press.

- The study reveals that most of the users face difficulty in accessing Internet facility in college libraries. The finding reveals that 22.8% of the users experienced difficulty in access Internet while 17% users do not face difficulty in accessing to Internet.

- The study represents that majority of responded face problem due to slow speed on Internet, lack of printing facility and privacy problem in accessing N-LIST Services. It was found that majority of responded face problem due to slow speed of Internet which is followed by problem in Internet connectivity, lack of printing facility and privacy problem in accessing N-LIST Services.

- It is found from the study that the respondents are suggesting organising N-LIST Awareness Training Program, providing Internet connectivity to the departments, and providing regular power supply may be for the solution for uninterrupted access to internet or N-LIST Services. It was observed that majority of the respondents (62.9%) suggest to organise more N-LIST awareness training which is followed by (50%) advocated for Internet connectivity to the departments whereas (40.7%) feels that regular power supply may be the solution for uninterrupted access to Internet or N-LIST Services.

5.1 Discussion

Sinha (2012) conducted a study to know the extent of Internet literacy among the university library users in Assam University library. The results show that the younger generation has accepted the Internet as a means for accessing to the relevant information for academic and research works, whereas the elderly people are still convergent with traditional resources who are using printed resources available in library, but the volume of frequent usage of e-resources among the users have been found to be at optimum level. The samples of the present study are mainly drawn from the teachers, research scholars and students are not very much comfortable using computers. In order to assess the Internet literacy and access patterns of e-resources, survey method has been adopted by the investigator, which comprises of administration of questionnaire, observation of the participants, and interview of some of the participants for knowing the opinion of the respondents in respect of awareness of ICT and Internet Literacy Skills and E-Resources access pattern for their day-to-day requirements pertaining to their academic and research activities. For carrying out the survey, purposive sampling technique has been adopted. The self designed questionnaire comprising of 18 questions has been distributed amongst the randomly selected 480 samples which comprises of faculty members, research scholars, UG/PG Students, Officers and Staff, out of which 324 respondents have responded. The results also described very effectively how a rapid change in information seeking behaviour and use of Internet for On-line access of E-resources have become the vital part of various information needs. The present study shows similar types of users expectations and pattern of access to e-resources.

6.1 Suggestions and Recommendations

On the basis of the present study and previous study following suggestions & recommendations are given for the improvements of the N-LIST Services provided to the college libraries to access scholarly e-resources (e-journals, e-books, and On-line databases) (Sinha 2012):

➢ To Provide Internet Connectivity to all the Departments/ Centres/ Offices;
➢ In order to increase the speed, more bandwidth should be provided to the colleges covered under the N-LIST programme;
➢ Un-interrupted power line should be made available for optimum utilisation of the e-resources which are available to the colleges;
➢ Include the Science Direct of Elsevier Science publications especially for Bio-Medical Sciences / Life Sciences/ Physical Science;
➢ Appropriate ICT Infrastructure with Internet Connectivity should be provided to the colleges which are not yet implemented the programme;
➢ Increase in number of Internet Access Points/ Terminals;
➢ Printing facilities should be made available to library users'
➢ It should be made mandatory for all the college libraries to avail of the facility of N-LISt Services
➢ Besides Teachers/ Research Scholars, UG/ PG Students should also encouraged to access Internet
➢ Provision of separate Internet Access Points for Teachers/ Research Scholars;
➢ There must be provision of regular User Awareness Programme/ Orientation Programme to be organised by the respective College Libraries, INFLIBNET Centre, University Library and the Department of Library and Information Science located in the region; and
➢ The LIS professionals and Users should be encouraged to participate in such training programme .

7.   Conclusion

The present study highlights the ICT awareness for accessing to E-resources available under N-LIST services by the college library users in network and digital environment . The information presented in this survey has provided a preliminary findings pertaining to the usage pattern of N-LIST services by the college library users which have been made available in the college library of Barak Valley affiliated to Assam University, Silchar.

From the study it is clear that very less number of respondents is aware of N-LIST service whereas majority respondents are not aware of N-LIST service, which shows that very less number of respondents is aware of N-LIST Services provided by the INFLIBNET for the College Library users.

The study also reveals that maximum number of respondents feel that N-LIST service is useful to some extent whereas only few library users feel that N-LIST service is highly useful and this might happen due to lack of N-LIST orientation program. N-LIST training program should be given to the college library users for the proper utilisation of E-resources/N-LIST Service.

It is found that most of the users face difficulty in accessing Internet facility in college libraries due to slow speed on Internet, lack of printing facility, privacy problem in accessing N-LIST Services and so on. So, these problems should be noted down by the College Library authority and the library staff should provide all the facility to the library users for the best utilisation of library E-resources/ N-LIST Service.

The present study reveals that the users are less aware of N-LIST Service so User's study should be conducted from time to time by the library staff so that the problems encountered could be resolved according to user's requirements. The infrastructure facilities should be enhanced for the better utilisation of N-LIST E-Journals. The College library can enhance its reputation by providing access to e-resources

and services to a great extent. The College libraries in Barak valley must seek for N-LIST membership from INFLIBNET and make a wide publicity among the users for the optimum utilisation of the service.

8.   Acknowledgements

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