

Awareness and Use of N-List E-Resources among Post-Graduate Students in Autonomous Colleges of Kerala

Aswathi K. K.*, Sajna K. P.**

Abstract

With the emergence of information technology, the demand for e-resources has been growing day by day. Advancement of ICT infrastructure leads to the wide use of e-resources. Nowadays, users can access e-resources on their desktops. N-LIST is an initiation to provide selected e-journals and e-books to the registered colleges in India. The present study was carried out among post-graduate students in autonomous colleges of Kerala. The study aims to examine the awareness and use of N-LIST e-resources, purposes of use, level of satisfaction, and problems faced by post-graduate students while accessing N-LIST e-resources. For this purpose, the investigator prepared a well-structured questionnaire as a tool for data collection. The hypotheses of study demand the use of different statistical techniques, such as simple percentage methods and the ANOVA test. The present study reveals that the majority of respondents are aware and use N-LIST e-resources. However, daily usage of N-LIST e-resources among post-graduate students is still not up to the mark. Based on the findings, the paper recommends that college libraries should enhance their infrastructure and provide proper Wi-Fi facility for the optimum utilisation of the N-LIST e-resources.

Keywords: N-LIST Programme, Electronic Resources, Library Consortium, Autonomous Colleges

Introduction

All around the world, India has the third-largest educational system after China and the United States.

All educational institutions in India are facing a shortage of funds for subscribing to international journals. Most of the colleges that run post-graduation and doctoral programmes lack the funds to purchase international journals and well-known magazines. This leads to the emergence of the concept of resource sharing and a consortium. N-LIST is one of the consortia models that provides access to selected e-resources for students, researchers, and faculty of colleges and other beneficiary institutions through servers installed at the INFLIBNET centre. The authorised users from registered colleges can access e-resources and download articles directly from the publisher's website once they are duly authenticated as authorised users through the servers deployed at the INFLIBNET centre.

The National Library and Information Service Infrastructure for scholarly content (N-LIST) is an initiation by the Ministry of Human Resources Development (MHRD), launched on 4 May 2010 and now being funded by UGC, as a college component under e-ShodhSindu consortium. From 2014 onwards, the N-LIST programme was subsumed under e-ShodhSindu. The programme provides access to selected e-resources for all government-aided colleges under section 2F/12B of UGC Act, and non-aided colleges, except for colleges imparting education in agriculture, engineering, management, medical, pharmacy, dentistry, and nursing. As on May 30, 2021, a total number of 3,166 government/government-aided colleges covered under the section 12B of UGC Act and 230 non-aided colleges have registered in the N-LIST programme. For registration of new colleges and renewal of member colleges, the annual membership fee for aided colleges is Rs. 5,900, while the same for

* M.Lib.I.Sc Student, Department of Library and Information Science, University of Calicut, West Bengal, India.
Email: aswathikkarchana@gmail.com

** Librarian, Kendriya Vidyalaya No. 1, Balasore, Odisha, India.

non-aided colleges is Rs. 35,400. Member colleges can access more than 6,000 e-journals and around 31,35,000 e-books through the N-LIST platform (<http://www.nlist.inflibnet.ac.in/>).

The N-LIST programme was launched to nurture research scholars and learners by providing access to knowledge resources in various disciplines at their desktops. For this, the UGC is spending a huge amount for providing relevant and up-to-date electronic information sources for the benefit of the college academic community in our country through the N-LIST consortium. However, the question is whether the user community is utilising the e-resources to the desired extent. In this context, an attempt is made to study the effectiveness and usefulness of N-LIST e-resources among post-graduate students.

Review of Literature

The published literature discusses the role of N-LIST e-resources to improve the learning outcome of the academic community in colleges. Extensive literature available on awareness, usage, and access pattern of N-LIST services in the past has been reviewed to have more insight into the aspect. Hanchinal (2019) conducted a study among college students in Mumbai, and claimed that 50% of the respondents have not accessed e-resources of the N-LIST programme. This situation is still alarming and points to the need for creating awareness among the students about e-resources of the N-LIST consortium. He also pointed out that the lack of infrastructure and low Internet speed are the major problems faced by the respondents. After conducting a study in selected degree colleges in Punjab University, Shivani and Rupak (2017) have recommended that the libraries should launch a marketing plan to promote the use of N-LIST through e-mails, social network text messages, and so on. Solanki (2017) argued that proper infrastructure for the N-LIST programme was not yet available in many colleges affiliated to the Saurashtra University. As per his study, especially in the case of government colleges, awareness of N-LIST e-resources was very poor. He suggested that awareness and utilisation of N-LIST e-resources may be promoted by periodically conducting workshops and training programmes by INFLIBNET, and also recommended that a few more e-resources can be added to the existing N-LIST e-resources. According to

another study conducted in degree colleges of Bengaluru by Narayanaswamy (2016), the qualities of N-LIST services were good and a majority of the students have used N-LIST services for preparation of assignments. Annu, Minni and Aparna (2015) conducted a study, which indicated that N-LIST seemed to be very effective in all academic activities. However, they opined that N-LIST had limited subject coverage of resources compared to UGC-Infonet. They observed that in colleges where orientation programmes have been conducted, the use of N-LIST is high. Chikkamanju and Kiran Kumar (2014) are of the view that a majority of the students were using N-LIST e-resources and most of them were satisfied with the current N-LIST services. Hima and Gayatree (2014) argued that the main problem faced by the users in Golaghat district college libraries was to retrieve the bulk amount of information while accessing N-LIST e-resources. The study conducted by Rajeshwar Kumar (2013) concluded that college libraries should organise awareness and training programmes to educate the users on seeking information from e-resources and to enrich the use of library resources and services. He also suggested developing e-infrastructure of computer network, and appointing sufficient library staff and computer operators to make the programme a success. Gouri et al. (2012) suggested in their study that training in e-resources retrieval skills for users shall be made compulsory.

Objectives of the Study

The present study is an endeavour to investigate the usage and accessibility of N-LIST e-resources by post-graduate students in autonomous colleges of Kerala.

The study was conducted with the following objectives.

- To analyse the awareness and use of N-LIST e-resources among post-graduate students in autonomous colleges.
- To study the frequency and purpose of the use of N-LIST e-resources by post-graduate students in autonomous colleges.
- To check whether any significant difference is there in the use of N-LIST e-resources among arts, science, and commerce students.
- To analyse the student's satisfaction level of the N-LIST e-resources for improving their learning outcomes.

- To check whether any significant difference is there in satisfaction level of N-LIST e-resources among arts, science, and commerce students.
- To analyse the problems faced by students in accessing N-LIST e-resources.

Methodology

The survey method was adopted and the questionnaire was the tool used to collect data from the target populations of post-graduate students in autonomous colleges of Kerala. There are 19 autonomous colleges in Kerala, which access N-LIST e-resources. Among these colleges, six colleges were randomly selected. A structured questionnaire was designed in printed format as well as Google Forms and was distributed among the representative random sample of 756 postgraduate students (126 students were taken from each college). Among these, 42 students were selected from each discipline, such as arts, science, and commerce, by stratified random sampling. Out of 756 questionnaires, 614 (81.2%) filled questionnaires were received. Data collected were analysed and interpreted using SPSS for descriptive statistics.

Discipline-wise distribution of the total questionnaire distributed and received is given in Table 1.

Table 1: Discipline-Wise Rate of Response

<i>Discipline</i>	<i>No. of Questionnaires Distributed</i>	<i>No. of Questionnaires Received</i>	<i>Rate of Response (in percent)</i>
Arts	252	219	86.9
Science	252	206	81.7
Commerce	252	189	75.0
Total	756	614	81.2

Analysis and Interpretation

The data collected by the questionnaire method and statistical analysis is analysed using SPSS software. Based on the formulated objectives, interpretations are made through analysis. Analysis and interpretation of data related to awareness and use of N-LIST e-resources among post-graduate students of autonomous colleges in Kerala have been presented in the following tables and graphs.

Discipline-Wise Distribution of Respondents

Discipline-wise distribution of responses among post-graduate students is divided into three categories, namely arts, science, and commerce. Table 2 describes the discipline-wise distribution of total respondents.

Table 2: Discipline-Wise Distribution of Respondents

<i>Arts</i>	<i>Science</i>	<i>Commerce</i>
219 (35.7%)	206 (33.6%)	189 (30.8%)

The table shows that out of 614 post-graduate students, 219 (35.7%) are from arts, 206 (33.6%) are from science, and 189 (30.8%) are from commerce.

Awareness of N-LIST Consortium

Only an awareness of N-LIST e-resources leads to optimum utilisation of such e-resources. To assess the awareness of N-LIST e-resources, respondents were requested to specify whether they had been aware or not.

Table 3: Awareness of N-LIST Consortium

<i>Discipline</i>	<i>Yes</i>	<i>No</i>
Arts	164 (74.9%)	55 (25.1%)
Science	165 (80.1%)	41 (19.9%)
Commerce	160 (84.6%)	29 (15.3%)
Total	489 (79.6%)	125 (20.3%)

Table 3 reveals that a majority of the students, 489 (79.6%), were aware of N-LIST e-resources and a few students (20.3%) were unaware. In arts, 74.9% of the students were aware of N-LIST e-resources; in science, 80.1%; and in commerce, 84.6%. The results of the study indicate that N-LIST is widely popular among college students. Raja and Venkateswarlu (2018) similarly found that a majority of the students were aware of e-resources provided through N-LIST.

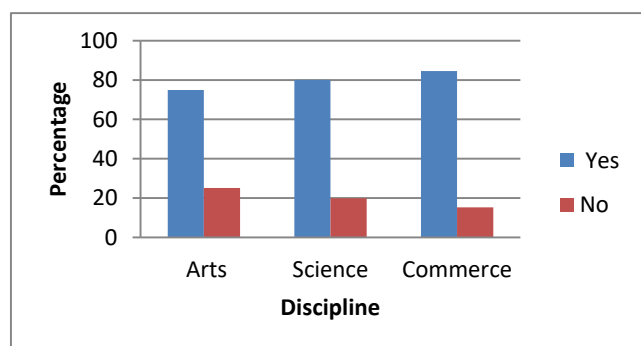


Fig. 1: Awareness of N-LIST Consortium

Sources of Information about N-LIST Consortium

The respondents were asked to mention the sources from which the students learnt about N-LIST e-resources. To this question, post-graduate students can choose multiple options. The responses are summarised in Table 4.

Table 4: Sources of Information about N-LIST Consortium

Awareness from the Sources	Arts	Science	Commerce	Total
Institute’s website	20 (12.2%)	12 (7.3%)	8 (5.0%)	40 (8.2%)
Institute’s prospectus	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Library orientation programme	116 (70.7%)	122 (73.9%)	125 (78.1%)	363 (74.2%)
Friends/ Colleagues	72 (43.9%)	63 (38.2%)	117 (73.1%)	252 (51.5%)
Library notice board	28 (17.1%)	8 (4.8%)	16 (10.0%)	52 (10.6%)
Library staff	80 (48.8%)	133 (80.6%)	121 (75.6%)	334 (68.3%)

Note: Due to multiple options, the overall percentage exceeded 100%. The results from Table 4 reveal that a majority of arts (70.7%), commerce (78.1%), and science (73.9%) students were aware of N-LIST

e-resources from library orientation programmes. A majority of the science students (80.6%) were aware of N-LIST e-resources from the library staff, whereas less than half of the arts (48.8%) and a majority of commerce (75.6%) students were aware from the library staff. Only a few percentage of arts (12.2%), very low percentage of commerce (5.0%), and science (7.3%) students were aware of N-LIST e-resources from the institute’s website. No respondents were aware of N-LIST e-resources from the institute’s prospectus. Less than half of the arts (43.9%), 38.2% of science, and a majority of commerce (73.1%) students were aware of N-LIST e-resources from friends/colleagues. A low percentage of arts (17.1%), science (4.8%), and commerce (10.0%) students were aware of N-LIST e-resources from the library noticeboard.

An analysis of Table 4 indicates that a majority of the post-graduate students (74.2%) were aware of N-LIST e-resources from library orientation programmes.

Use of N-LIST E-Resources

N-LIST e-resources are providing relevant and up-to-date electronic resources for the benefit of the college academic community in India. To achieve the maximum learning outcome, the effective and efficient utilisation of these resources are required. Hence, the use of N-LIST e-resources by post-graduate students in arts, science, and commerce streams has been depicted in Table 5.

Table 5: Use of N-LIST E-Resources

Discipline	Yes	No
Arts	160 (73.1%)	59 (26.9%)
Science	163 (79.1%)	43 (20.9%)
Commerce	152 (80.4%)	37 (19.6%)
Total	475 (77.4%)	139 (22.6%)

Table 5 describes a majority of students (77.4%) use N-LIST e-resources and only a few students (22.6%) do not. In arts, 73.1% of the students use N-LIST e-resources; in science, 79.1%; and in commerce, 80.4%. For further analysis, the data can be reduced to N-LIST e-resources users only.

Frequency of Use of N-LIST E-Resources

The N-LIST platform provides access to quality e-resources anytime and anywhere. Hence, the respondents were asked to mention the frequency of use of N-LIST e-resources.

Table 6: Frequency of Use of N-LIST E-Resources

Frequency	Arts	Science	Commerce	Total
Daily	4 (2.5%)	0 (0%)	0 (0%)	4 (0.8%)
Once a week	4 (2.5%)	27 (16.6%)	56 (36.8%)	87 (18.3%)
Monthly	56 (35.0%)	70 (42.9%)	37 (24.3%)	163 (34.3%)
Occasionally	96 (60.0%)	66 (40.5%)	59 (38.8%)	221 (46.5%)

Table 6 reveals that a majority of arts (60.0%), 38.8% of commerce, and 40.5% of science students use N-LIST e-resources occasionally. Less than half of the science (42.9%), 35% of arts, and 24.3% of commerce students use it monthly, followed by 2.5% of arts, 16.6% of science, and 36.8% of commerce students using N-LIST e-resources once a week. The respondents in science and commerce discipline do not use N-LIST e-resources daily, but a few percentage of arts (2.5%) students use N-LIST e-resources daily.

It is evident that while less than half the students use the N-LIST e-resources occasionally, the daily users are very few in number.

Place of Access of N-LIST E-Resources

The emergence of the Internet leads to the availability of knowledge resources at the user's fingertip at any place. N-LIST Consortium also provides access from

the college library, department, college computer centre/lab, and home for the academic community in colleges. Respondents were asked to mention the place from where they access N-LIST e-resources.

Table 7: Place of Access of N-LIST E-Resources

Place of Access	Arts	Science	Commerce	Total
Library	160 (100%)	159 (97.5%)	152 (100%)	468 (98.5%)
Home	20 (12.5%)	19 (11.7%)	7 (4.6%)	46 (9.7%)
Department	20 (12.5%)	23 (14.1%)	19 (12.5%)	62 (13.1%)
College computer centre/ Lab	56 (35.0%)	74 (45.4%)	56 (36.8%)	186 (39.2%)

Note: Due to multiple options, the overall percentage exceeds 100%. Table 7 reveals that out of 475 respondents, 468 (98.5%) prefer college library, followed by 39.2% who use N-LIST e-resources from the college computer lab, 13.1% who access from departments, and only a very low percentage (9.7%) of students who access the e-resources from home.

Table 7 highlights that most of the students prefer college library for accessing N-LIST e-resources. Rahul and Shashank (2017) in a study conducted in Maharashtra assert that the most preferred place for accessing e-resources under the N-LIST consortium is the college library.

Purpose of Use of N-LIST E-Resources

Academic communities use the N-LIST consortium for accessing e-books/e-journals to know about recent developments in their subject. The N-LIST e-resources are used for various purposes. Hence, a question is asked about the purpose of using N-LIST, and the responses are summarised in Table 8.

Table 8: Purpose of Use of N-LIST E-Resources

<i>Purpose</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neither Agree Nor Disagree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
Preparation of assignment	91 (19.2%)	228 (48.0%)	87 (18.3%)	58 (12.2%)	11 (2.3%)
Preparation of seminar/presentation	73 (15.4%)	216 (45.5%)	112 (23.6%)	62 (13.1%)	12 (2.5%)
For project/dissertation	151 (31.8%)	313 (65.9%)	8 (1.7%)	3 (0.6%)	0 (0%)
For preparing personal notes	62 (13.1%)	212 (44.6%)	124 (26.1%)	58 (12.2%)	19 (4.0%)
Preparing for competitive examinations	32 (6.7%)	243 (51.2%)	120 (25.4%)	69 (14.5%)	11 (2.3%)
For updating knowledge	54 (11.4%)	294 (61.9%)	74 (15.6%)	42 (8.8%)	11 (2.3%)

F = 4.468; Significant value (P) = 0.013

Table 8 depicts that a majority of post-graduate students (65.9%) agreed that N-LIST e-resources were used for the preparation of project/dissertation and updating their knowledge (61.9%). More than half of the students (51.2%) agreed that N-LIST e-resources were used for preparing for competitive examinations. Less than half the students used the resources for preparation of assignments (48.0%), seminars (45.5%), and personal notes (44.6%). A low percentage of students disagreed that N-LIST e-resources were used for the preparation of seminars/presentations (13.1%), preparation of personal notes (12.2%), and preparation of assignments (12.2%). A few (8.8%) students disagreed with the opinion that N-LIST e-resources were used for updating their knowledge. Only a very low percentage (0.6%) of students disagreed that N-LIST e-resources were used for project/dissertation purposes. A few (4.0%) students strongly disagreed that N-LIST e-resources were used for preparing notes.

The results from data reveal that a majority of the students agreed that N-LIST e-resources were used for the preparation of project/dissertation and updating their knowledge. Only a very few students disagreed with that. The ANOVA test was conducted to assess the discipline-wise difference in the purpose of using N-LIST e-resources among post-graduate students. Table 8 also shows that significant value is 0.013, less than 0.05 ($0.013 < 0.05$). Hence, there is a significant discipline-wise difference in the purpose of using N-LIST e-resources.

Table 9 compares the purposes of using N-LIST e-resources among three disciplines.

Table 9: Multiple Comparisons

<i>Group 1</i>	<i>Group 2</i>	<i>Mean Difference</i>	<i>Significant Value</i>
Arts	Science	-2.91163	0.003
Arts	Commerce	-1.61951	0.103
Commerce	Science	-1.29212	0.185

The multiple comparisons table shows that a significant difference is noted between arts and science students only.

Most Used E-Resources

E-resources available through the N-LIST consortium are e-journals and e-books. The investigator asked respondents about the most used e-resources. User responses are given in Table 10.

Table 10: Most Used E-Resources

<i>E-Resources</i>	<i>Arts</i>	<i>Science</i>	<i>Commerce</i>	<i>Total</i>
E-books	76 (47.5%)	19 (11.7%)	4 (2.6%)	99 (20.8%)
E-journals	84 (52.5%)	144 (88.3%)	148 (97.4%)	376 (79.2%)

Table 10 shows that a large majority of students in science (88.3%), most of the commerce students (97.4%), and more than half of the students in arts (52.5%) preferred e-journals. However, less than half the students in arts (47.5%) preferred e-books, followed by a low percentage of science students (11.7%), and very few commerce students (2.6%). Table 10 highlighted that e-journals are the better-used e-resources, compared to e-books.

Use of E-Resources Available in N-LIST Consortium

Electronic resources subscribed under the N-LIST programme cover areas like science and technology, management, social science, humanities, and languages. Use of e-resources available in the N-LIST consortium is given in Table 11.

Table 11: Use of E-Resources Available in N-LIST Consortium

<i>E-Resources</i>	<i>Arts</i>	<i>Science</i>	<i>Commerce</i>	<i>Total</i>
E-Journals				
American Institute of Physics	0 (0%)	70 (42.9%)	0 (0%)	70 (14.7%)
Annual Reviews	0 (0%)	58 (35.6%)	0 (0%)	58 (12.2%)
Economics and Political Weekly	32 (20.0%)	4 (2.5%)	7 (4.6%)	43 (9.1%)
Indian Journals	116 (72.5%)	89 (54.6%)	115 (75.7%)	320 (67.4%)
Institute of Physics	0 (0%)	50 (30.7%)	15 (9.9%)	65 (13.7%)
JSTOR	92 (57.5%)	136 (83.4%)	126 (82.9%)	354 (74.5%)
Oxford University Press	64 (40.0%)	19 (11.7%)	14 (9.2%)	97 (20.4%)
Royal Society of Chemistry	0 (0%)	50 (30.7%)	0 (0%)	50 (10.5%)
H. W. Wilson	0 (0%)	19 (11.7%)	0 (0%)	19 (4.0%)
Cambridge University Press	44 (27.5%)	19 (11.7%)	4 (2.6%)	67 (44.1%)
E-Books				
Cambridge Books Online	36 (22.5%)	15 (9.2%)	0 (0%)	51 (10.7%)

<i>E-Resources</i>	<i>Arts</i>	<i>Science</i>	<i>Commerce</i>	<i>Total</i>
E-brary	84 (52.5%)	35 (21.5%)	48 (31.6%)	167 (35.1%)
EBSCOHost-Net Library	0 (0%)	0 (0%)	19 (12.5%)	19 (4.0%)
Hindustan Book Agency	0 (0%)	50 (30.7%)	0 (0%)	50 (10.5%)
Institute of South East Asian Studies (ISEAS) Books	84 (52.5%)	0 (0%)	0 (0%)	84 (17.7%)
Oxford Scholarship	100 (62.5%)	12 (7.4%)	0 (0%)	112 (23.6%)
Springer eBooks	96 (60.0%)	13 (7.9%)	37 (24.3%)	146 (30.7%)
Mylibrary-Mc-Graw Hill	76 (47.5%)	10 (6.1%)	15 (9.9%)	101 (21.3%)
World-ebooks Library	12 (7.5%)	0 (0%)	0 (0%)	12 (2.5%)
South Asia Archive	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Note: Due to multiple options, the overall percentage exceeds 100%. Table 11 reveals that a majority of the arts post-graduate students (72.5%) preferred Indian Journals in e-journals, followed by JSTOR (57.5%), while the most used e-books by arts post-graduate students were Oxford Scholarship (62.5%) and Springer e-books (60.0%). The most used e-journal by science post-graduate students was JSTOR (83.4%), and the most used e-book was Hindustan Book Agency (30.7%). In the case of commerce students, the most used e-journals were JSTOR (82.9%), followed by Indian journals (75.7%); and the most used e-book was E-brary (31.6%).

An analysis of Table 11 indicates that the most used e-journal among post-graduate students was JSTOR, followed by Indian journals. Among post-graduate students, E-brary was the most used e-book.

Level of Satisfaction of Sources Available in N-LIST Consortium

N-LIST consortium provides online information in the form of e-books and e-journals. These e-resources are used to improve the learning outcomes of academic communities in colleges. So the analysis of satisfaction levels of N-LIST e-resources among students is very important. Satisfaction levels of respondents are given in Table 12.

Table 12: Level of Satisfaction of Sources Available in N-LIST Consortium

Retrieved Information Includes	Extremely Satisfied	Moderately Satisfied	Satisfied	Somewhat Satisfied	Not Satisfied
Subject coverage	35 (7.4%)	286 (60.2%)	116 (24.4%)	31 (6.5%)	7 (1.5%)
Relevant learning material in your subject disciplines	35 (7.4%)	197 (41.5%)	185 (38.9%)	56 (11.9%)	2 (0.4%)
Quality of content	31 (6.5%)	274 (57.7%)	147 (30.9%)	19 (4.0%)	4 (0.8%)
Updated information in your subject	65 (13.6%)	143 (30.1%)	208 (43.8%)	56 (11.8%)	3 (0.6%)

F = 1.975; Significant value (P) = 0.143

Table 12 shows that a majority of students were moderately satisfied with the subject coverage (60.2%) and the quality of content (57.7%) in N-LIST e-resources. Less than half (41.5%) of the students were moderately satisfied with the relevancy of learning materials. Less than half of the students (43.8%) were satisfied with the updated information in their subject. Only a very few percentage of students were not satisfied with subject coverage (1.5%), the relevancy of learning material (0.4%), information updating (0.6%), and quality of content (0.8%) of N-LIST e-resources.

A similar kind of study was conducted by Chikkamanju and Kiran Kumar (2014) in women's first-grade colleges affiliated to the University of Mysore, and the results are almost in line with the present study, which states that a majority of students were moderately satisfied by N-LIST services. The ANOVA test was conducted to assess the discipline-wise difference in the satisfaction level of N-LIST e-resources among post-graduate students. Table 12 shows that the significant value is 0.143, greater than 0.05 ($0.143 > 0.05$). Hence, there is no significant difference in satisfaction level of N-LIST e-resources among arts, science, and commerce post-graduate students.

Problems using N-LIST E-Resources

The optimum utilisation of N-LIST e-resources is constrained by difficulties faced in accessing these resources. The respondents were asked to point out the problems they faced while accessing N-LIST e-resources. The responses are summarised in Table 13.

Table 13: Problems using N-LIST E-Resources

Problems	Arts	Science	Commerce	Total
Lack of technical knowledge	136 (85.0%)	85 (52.1%)	67 (44.1%)	288 (60.6%)
Provide irrelevant information	76 (47.5%)	58 (35.6%)	33 (21.7%)	167 (35.2%)
Language barrier	116 (72.5%)	31 (19.0%)	48 (31.6%)	195 (41.1%)
Lack of library support	36 (22.5%)	15 (9.2%)	41 (26.9%)	92 (19.4%)
Not provide updated information	28 (17.5%)	72 (44.2%)	59 (38.8%)	159 (33.5%)

*Multiple answers were permitted.

Table 13 shows that a majority of arts (85.0%) and less than half of the commerce (44.1%) students face the problem of lack of technical knowledge in accessing N-LIST e-resources, whereas more than half of the science (52.1%) students faced the problem of lack of technical knowledge. Less than half of the arts (47.5%), 35.6% of science, and a few percentage of commerce (21.7%) students responded that the N-LIST consortium provides irrelevant information. A majority of the arts (72.5%), a few science (19.0%), and 31.6% of commerce students have faced the problem of the language barrier. A very low percentage of science students (9.2%), commerce students (26.9%), and arts students (22.5%) faced the problem of lack of library support. The least percentage of arts students (17.5%), less than half of the science (44.2%), and commerce (38.8%) students responded that N-LIST e-resources provide irrelevant information.

Table 13 highlights that a majority of post-graduate students faced the problem of lack of technical knowledge while accessing N-LIST e-resources.

To overcome this problem, it is proposed to conduct hands-on training programmes on the N-LIST consortium.

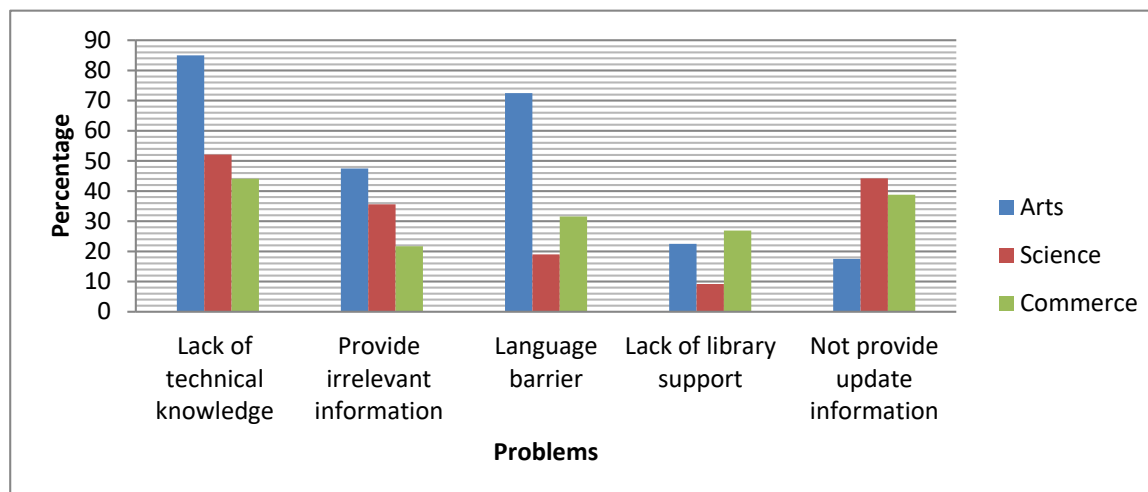


Fig. 2: Problems using N-LIST E-Resources

Conclusions

College libraries have a major role in higher education. The inclusion of consortium-based e-resources subscription has to lead the enhancement of providing quality education to the users. The present study evaluates the awareness and accessibility of N-LIST resources among post-graduate students considered under the study. The findings of the study indicate that the users are dependent on N-LIST e-resources for improving their learning outcomes and updating themselves in their field of specialisation.

In India, college libraries provide e-resource access facilities through the N-LIST consortium. The study reveals that a majority of the students are aware and use N-LIST e-resources. Few students are not aware of the N-LIST consortium. A majority of post-graduate students are aware of N-LIST e-resources from the library orientation programmes. However, daily usage of N-LIST e-resources among post-graduate students is not up to the desired level. It is shining a light on the need for proper infrastructure and Wi-Fi facility in colleges. The study reveals that a majority of post-graduate students used N-LIST e-resources for the preparation of a project/dissertation and for updating their knowledge. Post-graduate students are moderately satisfied with the

e-resources provided by the N-LIST consortium. The study highlights that a majority of post-graduate students faced problems due to lack of technical knowledge while accessing N-LIST e-resources. To make it successful and to ensure the best use of the N-LIST consortium, the library should conduct regular user education and hands-on training programmes to use electronic sources of information more effectively and efficiently.

References

- Annu, G., Mini, G. P., & Aparna, P. R. (2015, January 1). *Use of N-LIST programme and the role of college librarians: A survey* [Conference paper]. Retrieved from <http://eprints.rclis.org/24825/>
- Chikkamanju, & Kiran Kumar, G. (2014). Use of N-LIST services by women's first grade colleges affiliated to University of Mysore: A study. *Asian Journal of Multidisciplinary Studies*, 2(7), 47-52.
- Gouri, S. K., Prasanta, K. D., Sanjay Kumar, K. S., & Sankar, S. (2012). *E-resources in college libraries of Guwahati with reference to NLIST: A study* (pp. 412-418). Retrieved from <http://ir.inflibnet.ac.in:8080/ir/handle/1944/1696>
- Hanchinal, V. B. (2019). Awareness and usage of e-resources of N-LIST consortium: A study with reference to academic colleges of Mumbai. *Library Philosophy and Practice (e-Journal)*, 13.

- Hima, J. D., & Gayatree, B. (2014). *N-LIST an institutional repositories: A cases study in Golaghat district college libraries of Assam* (pp. 331-335). Retrieved from <http://ir.inflibnet.ac.in:8080/ir/handle/1944/1812>
- Narayanaswamy, B. V. (2016). Use and awareness of N-LIST services by degree colleges in Bangalore: A study. *International Research Journal of Multidisciplinary Science & Technology*, 1(5), 63-68.
- N-LIST: National Library and Information Services Infrastructure for scholarly content*. (n.d.). Retrieved May 25, 2020, from <https://nlist.inflibnet.ac.in/>
- Rahul, B. K., & Shashank, S. S. (2017). Library and information science e-journals accessible under N-LIST consortium. *Asian Journal of Information Science and Technology*, 7(2), 8-15.
- Raja, S. K. P., & Venkateswarlu, Y. C. H. (2018). Use of N-LIST e-resources by faculty and students of MRITS and MRCE engineering college libraries, Hyderabad, Telangana - A case study. *Journal of Advances in Library and Information Science*, 7(4), 304-308.
- Rajeshwar Kumar, G. (2013). Awareness and use of electronic resources through N-LIST: A boon to academic libraries. *International Journal of Librarianship and Administration*, 4(1), 17-25.
- Shivani, K., & Rupak, C. (2017). Identifying quality contents of N-LIST e-resources for academic pursuits and learning outcomes. *International Journal of Information, Library & Society*, 7(1), 13-18. doi:<https://doi.org/10.5281/zenodo.2576432>
- Solanki, M. R. (2017). *N-LIST programme for college libraries affiliated to Saurashtra University: Problems and prospects* [Saurashtra University]. Retrieved from <http://shodhganga.inflibnet.ac.in:8080/jspui/handle/10603/218441>