

International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452
Maths 2022; 7(4): 50-54
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www.mathsjournal.com
Received: 05-03-2022
Accepted: 26-05-2022

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A statistical study to evaluate the utilization of e-resources of national digital library (NDL) among learners in Maharashtra State, India

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Abstract

The National Digital Library (NDL) is established by the Ministry of Education under its National Mission on Education through Information and Communication Technology. It is a framework of virtual repository of learning resources with a single-window search facility from several national and international digital libraries, as well as other relevant sources. NDL is intended to facilitate people to learn and prepare from best practices from all over the world and to smooth the progress of researchers to perform inter-linked exploration from multiple sources. However in real time practice it is observed the utilization and usefulness of NDL is not promoted to the researchers and among various segments of learners. This research study is conducted to explore the responsiveness and utilization of e-Resources of NDL especially after novel COVID-19 pandemics among Researchers in Maharashtra State, India.

Keywords: National digital library, NDL, library science, Maharashtra

Introduction

National Digital Library (NDL) is a digital platform that provides free of cost access containing various materials for learning media. such as textbooks, articles, videos, audio books, lectures, simulations, fiction and all other kinds of learning media. All learning media are available in various Indian languages and English. The NDL is a project of National Mission on Education through Information and Communication Technology (NMEICT). The NDL is developed to provide single window access to all kinds of learning media to researchers across the world. The NDL is a platform available to benefit where all the educational materials are available for users ranging from kinds of users like under graduate students, teachers, researchers, librarians, library users, professionals and all other lifelong learners. It is provided in a 24x7 integrated environment where learners can find out the right resource with least effort and in minimum time. As a national knowledge asset, the repository of NDL hosts contents from multiple subject domains like Arts, Science, Commerce, Management Technology, and Science, Humanities, Agriculture etc. The learning media are available in more than 400 languages and Repository integrates contents from different Indian Institutional Repositories. The NDL India has teamed up with libraries in Indian institute of educational and research, various public libraries as well as with international libraries to get admittance to various education materials on a wide range of subjects. The NDL India is a digital library that boasts of 2 crore resource materials, out of which 40 lakh are books and has a collection of more than one crore articles. The NDL India is presently one of the biggest treasure troves in the global cyberspace. With general awareness about advantages of using ICT solutions increasing exponentially among the masses and expectation that the Digital India movement will lead to a stronger and wider reach of the ICT infrastructure across the country, NDL should be able to bring a paradigm shift in education movement in India covering all stages from kindergarten to cutting edge research to life-long learners. Hence in this information age, knowledge has a significant importance in different spheres of human endeavors such as education, research and development, decision and policy making. The NDL is one of the best platforms for all types of learners. Whoever one other side its real time observation that most of the learners are not aware about the advantages of e-resources in

NDL, even the learners are aware about the NDL either they are not utilizing NDL or they do not have resources to utilization of e-resources in NDL.

This research study is an attempt to discover learner's awareness on NDL, utilization of e-resources available in NDL, an assortment of users of NDL among Researchers in Maharashtra State, India.

Review of Literature

Since the last few years the teaching and learning system has changed dramatically, observing that instead of traditional methods the digitalized teaching and learning system has been accepted by almost all institutes. This significant change in the education system crated the unique impotence to NDL. Hence its real time to study the precise role of NDL in this changing education system and its utilization by learner's. However very few studies have been undertaken in the past to comprehend the various aspects of NDL. The study examines the review of works relating to various aspects of Digital Library and Digital Resource. It could be observed that there are various research studies highlighting the importance of Digital library and digital resources. But there is no such study found relating to the National Digital Library Project by MHRD, India. Puttaswamy, R.M. (2014) ^[11] study emphasizes the usefulness of e-Resources among the teachers and scholars of engineering colleges in the Bangalore region under Visvesvaraya Technological University (VTU), Belgaum, Karnataka. Survey methodology has been used as the basic research tool for data collection with the help of questionnaires. The findings reveal that e-resources are useful for engineering college teachers and scholars for their academic and research activities. Tunji, Abdulmumin & Adisa (2011) ^[3] study revealed that the frequency of use of e-resources was low. They pointed-out various problems such as; lack of awareness among users about e-resources offered by the library, were the major problems in proper utilisation of library services. G. Mahesh and Rekha Mittal (2008) ^[8] study the digital library development initiatives in India. To gain insight, assess and understand the growth, development and current status of digital library initiatives in India as reflected through scholarly journals, 63 published studies on digital libraries in India have been reviewed. The study reveals that most articles focus on developing digital libraries and digital collections except for a few studies on copyright issues and management of digital libraries. No studies have touched upon issues such as digital rights management, security and digital library policies. Munavalli Sanjay B (2017) ^[2], studied about the available learning resources and subject domains covered by NDL content and metadata of collection. NDL membership and search facility. NDL emerged as a boon for lifelong learners. Anyone, anytime, anywhere can access these resources through the NDL app. Dr. Majumdar Amrita (2018), conducted the survey to understand the use of NDL mobile app use among the Indian students and also analyzed the reviews of students towards the NDL. Darandale A. G. (2017) ^[4], in his study he determine the various Strength, Weakness, Opportunity and Threats using (SWOT) analysis of National Digital Library of India, he found that SWOT analysis found lot of strengths in NDL,

but need to concentrate on weakness and threats also, so that they will convert in to strengths. Bisma Bashir (2019) ^[5], conducted the research study to evaluate an overview of the National Digital Library of India (NDL India) to understand its advantages, features and collection in the global digital space. Rao M. G. (2021) ^[6], in his study he concluded that The MHRD initiative aims to make the National Digital Library accessible to the public. He wants all Indian students, academics and researchers to seize this opportunity and aspire to be partners in the progress of the country also Shilpa Rani (2019) ^[7] discussed about the vision and advantages of Its provides search facility for different category of users with a single-window and it also highlights the procedures for providing access to e-content. A survey conducted by G. Mahesh and Rekha Mittal (2008) ^[8] conclude that NDL would help not only in understanding the present situation but will help in drawing up an action plan for focused digital library development in India. Further, use and user studies of digital libraries in India are lacking.

It is observed that all research study is conducted on or before the COVID-19 pandemics. However the whole world significantly affected due this COVID-19 pandemics. The education system especially changed dramatically around India. With continuation to above discussion, it's significant to evaluate the learner's responsiveness and utilization of e-resources of NDL especially after novel COVID-19 pandemics.

Research Methodology

This study is conducted to determine the awareness and utilization of e-resources related to NDL among learners namely the undergraduate, postgraduate students, research students and teachers among Maharashtra State, India. The present study is evaluated with following objectives.

Research Objectives

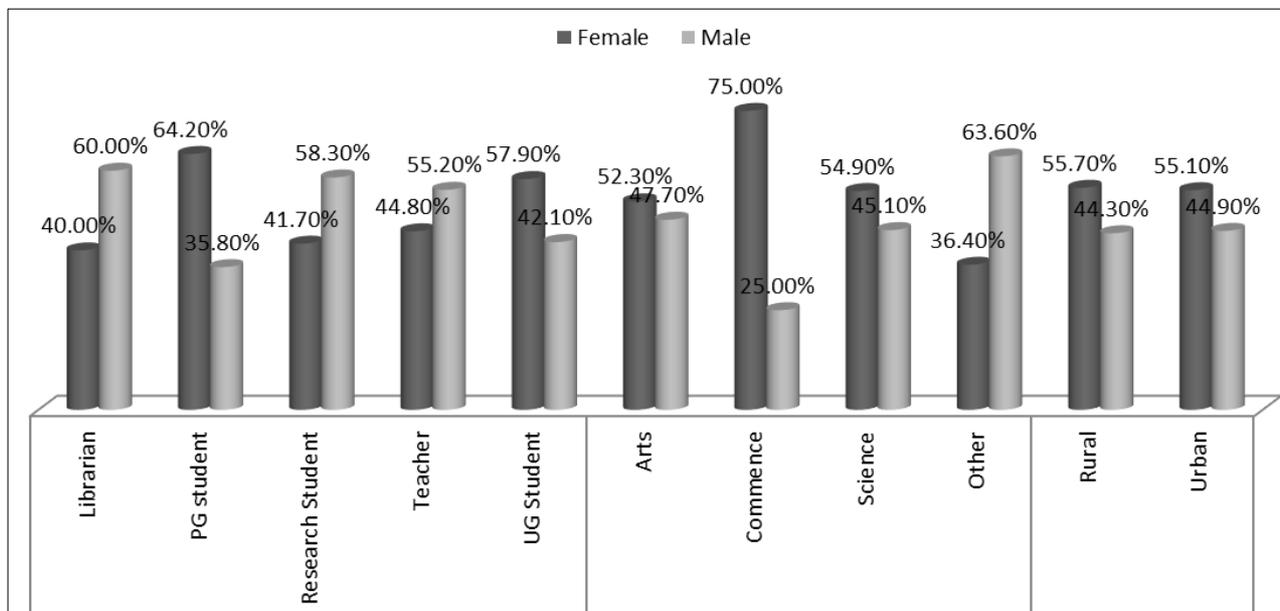
1. To evaluate the awareness of learners on NDL according to gender, location and educational Stream.
2. To test the significance utilization e-resources of NDL according to gender, location and educational Stream.
3. To determine the learners expectation towards NDL.

Research Design

In this study, the primary data had been collected through a survey method based on questionnaires. The random samples are collected using Google Form. Total sample of size 606 learners responded to this survey questionnaire. The study was carried out among learners namely the undergraduate, postgraduate students, research students and teachers, among Maharashtra State, India. Plan for data analysis: In this study all qualitative variables are measured on ordinal scales and are presented with count (N) and percentage (%). Same descriptive statistics are presented graphically. All statistical tests are conducted at 5% level of significance (α).

Statistical Analysis

The Statistical analysis of this study is conducted using SPSS. The Statistical analysis results are as follow.



Graph 1: Demographic Summary of Respondents

As discussed above in this study 606 learners responded to various research questions on NDL of India. In order to compare the responses of learners towards the NDL we collected demographic information. The Graph-1 shows the gender wise distribution of learners with respect to occupation, Stream and their geographical location.

The result in Table-1 indicates the awareness of NDL of India among the learners. The results indicate that around 73.80% females and 75.60% males are aware about the “Digital Library”, however it’s interesting to note that only 56.00% females and 62.20% males are aware about NDL of India out of which only 33.30% females and 31.90% males are having membership of NDL of India. Moreover only 19.00% females are utilizing the mobile application of NDL of India, which is smaller than male (23.00%). Hence in real time sufficiently large amount of learners are having an awareness of NDL of India, however significantly fewer learners are utilizing the e-resources of NDL.

In case of comparison of utilization of NDL of India with respect to their stream of education, it has been viewed that around on average 66.53% of learners are aware about the

digital library, whereas science stream learners are having significantly higher awareness (83.50%) among the learners and low awareness observed among Commence stream learners. Also from Table-2 it is clear that, the commerce and professional streams are having significantly less awareness on NDL of India as compared to arts and sciences stream.

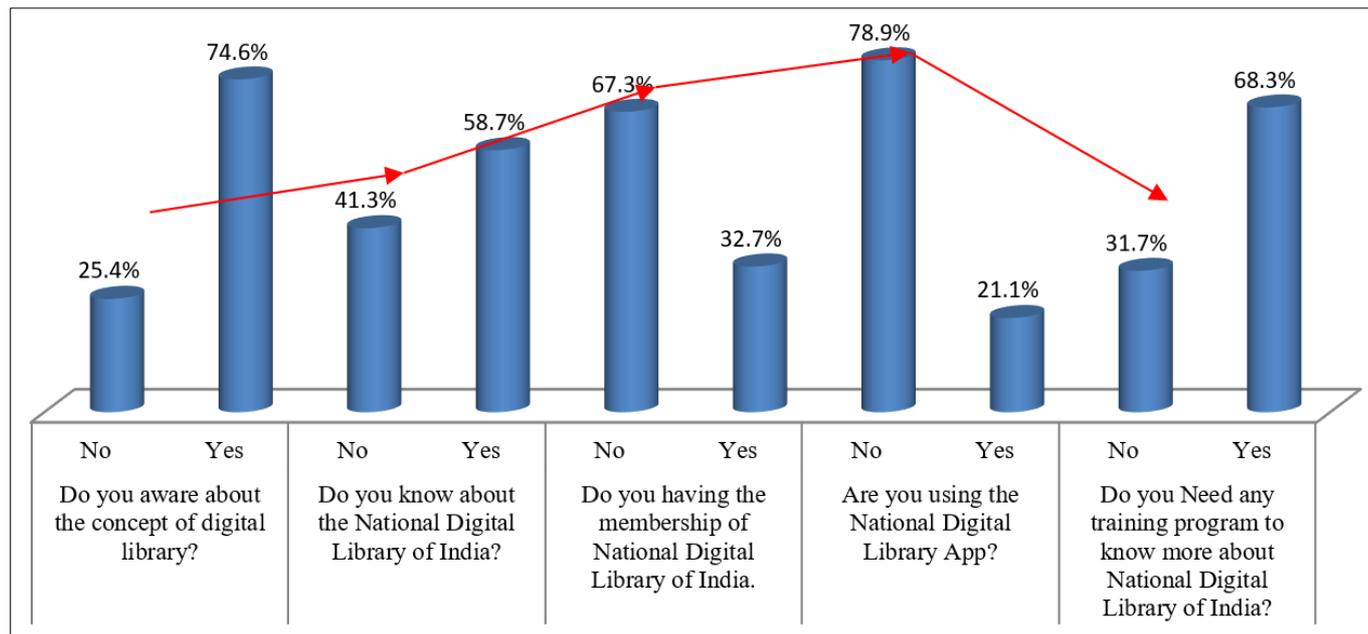
Overall only 58.70% of learners are aware about the NDL of India, out of which only 32.70% of learners have the membership. That is around 44% of learners only utilize the digital facilities available by NDL of India, remaining 66.00% learners are not utilizing the digital facilities available by NDL of India even though they are aware of it. Whereas, only 21.10% learners utilize the NDL mobile application which is a serious concern for National Mission on Education through Information and Communication Technology. It is a very fascinating observation of this study that there is no significant difference between rural and urban learners' awareness of digital libraries. That is there is no significant impact of geographical location on awareness and utilization of digital facilities available by NDL of India.

Table 1: Awareness of learners on NDL according to gender, location and educational Stream

	Do you aware about the concept of “Digital Library”?		Do you know about the “National Digital Library of India”?		Do you having the membership of National Digital Library of India.		Are you using the National Digital Library App?		Do you Need any training program to know more about National Digital Library of India?	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Gender (%)										
Female	26.20	73.80	44.00	56.00	66.70	33.30	81.00	19.00	29.80	70.20
Male	24.40	75.60	37.80	62.20	68.10	31.90	76.30	23.70	34.10	65.90
Educational Stream (%)										
Arts	25.00	75.00	34.10	65.90	52.30	47.70	63.60	36.40	13.60	86.40
Commence	50.00	50.00	61.40	38.60	72.70	27.30	75.00	25.00	47.70	52.30
Professional	42.40	57.60	51.50	48.50	81.80	18.20	81.80	18.20	45.50	54.50
Science	16.50	83.50	36.30	63.70	67.00	33.00	83.00	17.00	29.70	70.30
Location										
Rural	27.80	72.20	40.30	59.70	64.20	35.80	80.70	19.30	33.50	66.50
Urban	22.00	78.00	42.50	57.50	71.70	28.30	76.40	23.60	29.10	70.90
Occupation (%)										
Librarian	20.00	80.00	0.00	100.00	60.00	40.00	20.00	80.00	0.00	100.00
PG Stu.	23.90	76.10	40.40	59.60	66.1	33.90	75.20	24.80	29.40	70.60
Research	5.60	94.40	30.60	69.40	47.20	52.80	63.90	36.10	22.20	77.80
Teacher	17.20	82.80	32.80	67.20	65.50	34.50	82.80	17.20	24.10	75.90
UG Stu.	40.00	60.00	53.70	46.30	77.90	22.10	50.50	49.50	44.20	55.80

Occupation wise analysis results shows, an less 50% of UG students are aware about digital library concept and NDL of India even when approximately more that 75% of librarians, teachers are having the awareness. Its real time necessity to start the awareness companying for upcoming students and motivate them to exploit the all e-resource of NDL of India.

As our study results shows that only 40% librarian, 34.50% teachers and 52.00% researchers not having the member ship of NDL of India, indicated real reason due to which less utilization of e-resources of NDL. At end all most 68% learners are seeking for training programs on various facilities available in NDL of India in order to enhance the knowledge.

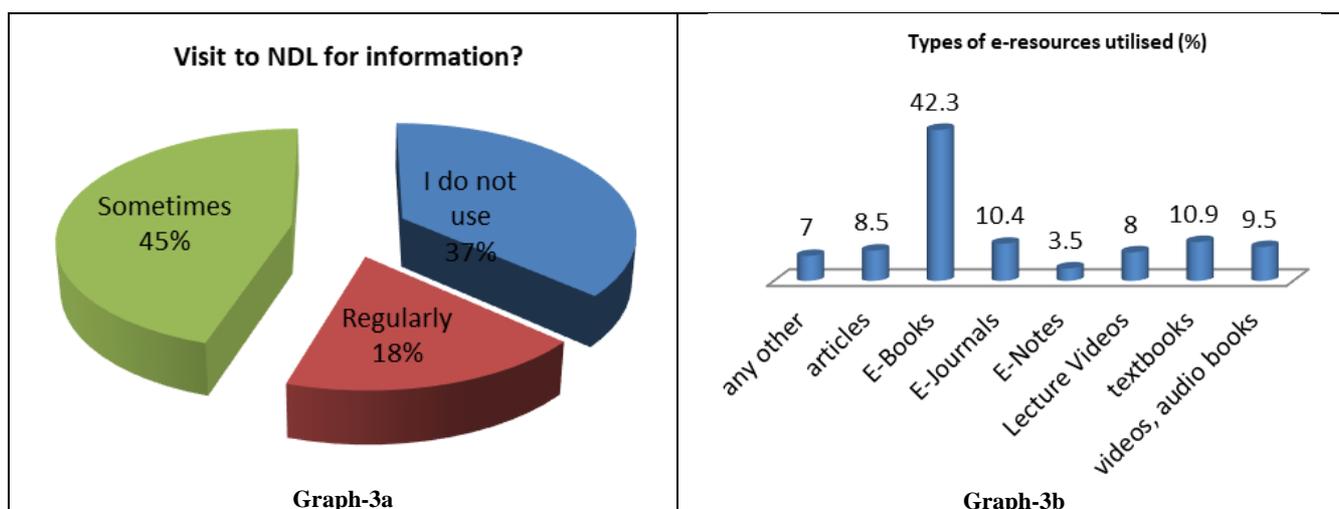


Graph 2: Awareness of learners on NDL according to gender, location and educational Stream.

Graph-2 relive that approximately 74.60% of learners aware about the digital library, only 58.7% are having information about the existence of NDL of India, out of which only 32.7% of learning having membership of NDL of India. That means only around 33% of learners are utilizing the real time facilities of NDL to fulfill their learning needs, which is significantly low. Hence with continuation of above discussion NDL authority should plan for accomplish learning to benefit the virtual repository of learning resources.

The Graph-3a indicated the frequency of visiting NDL of India. It's clear that the learners who are having membership

of NDL of India, only 18% of learners are utilizing e-resources on regularly, around 45% are utilizing on irregular basis and 37% are not using the facilities provided by NDL. Graph-3b indicates the distribution of various e-resources utilized by learners. From Graph-3a it's clear that approximately only 63% of learners are utilizing the e-resources of NDL of India out of which 42.3% are utilizing the E-books, 10.4% using for E-journals, 10.9% learners accessing it for text book and only 9.5% are utilizing for audio video lectures. It is clear that apart from E-book, use of other e-resources of NDL of India is significantly lower.



Graph 3: Utilization of NDL.

Conclusion

This research study would help not only in understanding the present situation of NDL of India but will help in drawing up an action plan for focused for the sustainable utilization of

NDL of India among learners. The NDL of India has team up with national and international libraries across the globe get access to books on a wide range of subjects. The NDL of India is a digital library that possess of more than 2 Crore

resource materials, out of which 40 lakh are books and has a collection of 1.26 Crore articles (Falak, 2018). The NDL of India is 24X7 plat form that result of which learners can find out the right resource and hence it is a major treasure trove in the global cyberspace. The NDL should be capability to change and support the Indian education system from traditional way to digital platform of education.

However this study results indicates that only 58.7% of learners are aware about the existence of NDL of India, out of which only 32.7% of learning having holding the membership of NDL of India. Also it is observed that approximately only 63% of learners are utilizing the e-resources of NDL of India out of which 42.3% are utilizing the E-books and 68% learners are in quest of training programs on various facilities available in NDL of India. Hence on the basis of study results and discussion here we conclude that, its real time necessity to develop some awareness companying and training program in all colleges, Universities and research institutes for successful utilization of NDL.

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