

Acquaintance on National Programme on Technology Enhanced Learning (NPTEL Online Information Literacy) among Library Users of Central Library, Anna University, Chennai: An Online Survey

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Abstract

NPTEL is an acronym for National Programme on Technology Enhanced Learning that is an initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras, and Roorkee) and Indian Institute of Science (IISc) for creating course contents in engineering and science. The article aims that survey of awareness regarding the available NPTEL information resources consulted by the library users. Results show that for 50.60% library users there was importance of NPTEL electronic resources and for 47.20% electronic resources usages were very important in academic education, for engineering graduates.

Keywords: NPTEL, library users, Anna University

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INTRODUCTION

The National Programme on Technology Enhanced Learning (NPTEL) provides free online courseware in the form of web courses and video lectures [1]. These lectures utilize a multitude of facilities of the video medium such as chalk-and-talk, tablet writing, power point, two and three dimensional animations, interactive codes, etc. Each course comprises approximately 40 video lectures of about 1 h duration.

The project funded by the Ministry of Human Resource Development (MHRD), provides electronic learning through online web and video courses in engineering, sciences, technology, management, and humanities. This is a joint initiative by seven IITs and IISc Bangalore. Therefore, this article was survey conducted to online information literacy of NPTEL among library users of central library, Anna University, Chennai.

REVIEW OF LITERATURE

Kumbar discussed issues related to growing prevalence of higher educational institutions in

India [2]. A major collaborative project called National Programme on Technology Enhanced Learning (NPTEL) was started by the eight major institutes of national importance viz., Indian Institute of Technology and the Indian Institute of Science in association with the ministry of human resources and development of India in 2003.

Kattimani stated that in the information technology era, the technical institutions have radically changed the information environment [3]. Information and Communication Technology (ICT) has created new opportunities to effectively store and transmit the digital video over networks.

E-learning introduced as an integral part of an environment where teaching transformed and where learning is an ongoing, creative process. Along with the basic concepts of e-learning technology and its applications to the technical education using software's and hardware requirements, the basic objective of science and engineering education in India is to devise and guide reforms that will transform India

into a strong and vibrant knowledge economy. In this context, the focus areas for National Programme on Technology Enhanced Learning (NPTEL) project have been:

- (i) Higher education,
- (ii) Professional education,
- (iii) Distance education, and
- (iv) Continuous and open learning.

The E-Vidya solution deployed on a local high capacity server of required specification where installed in each college campus. Client computers access the streaming media content over the standard high-speed campus LAN using a web browser and media player plug-in. Sripathy designed a study on the major milestones of educational television in India [4].

The article focused on utilization of television for education in India, starting with secondary school education project, project krushi dharshan, DATV, SITE, Post-SITE, INSAT, UGC HETV, EDUSAT and Project NPTEL.

Objectives

- To survey and assess the knowledge of national programme on technology enhanced learning, online information literacy among library users of central library, Anna University, Chennai.
- To study the awareness regarding the available NPTEL information resources consulted by the library users.

Limitation

- The study covers only the students (Library Users) of central library, Anna University, Chennai and survey restricted to the only nation programme on technological enhanced learning.

METHODOLOGY

Simple random survey method was used to collect primary data from the Anna University central library users (students). A structured online questionnaire was prepared and distributed through mail to 100 students, out of which 89 have responded and the response rate was 89% (Table 1, Figure 1).

The collected data was presented in the form of tables and analyzed by using a simple percentage.

Table 1: Gender Wise Distribution.

Gender	Frequency	Percentage
Male	54	59.60
Female	35	40.40
Total	89	100.00

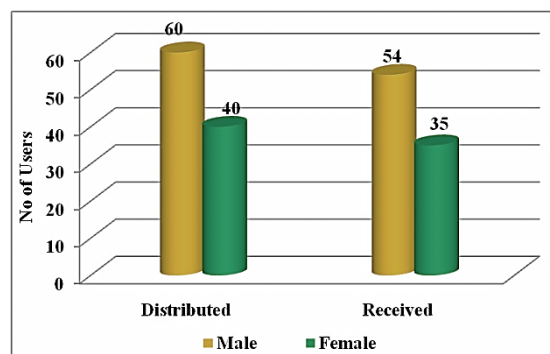


Fig. 1: Frequency Distribution of Response Rate.

Data Analysis and Interpretation

Table 2 shows the students wise distribution of respondents. A total of 89 opinions were collected directly from the library users of Anna University central library, Chennai. It is observed that, of the total 89 respondents, 78 (87.60%) are under graduates, 10 (11.20%) are post graduates, 01 (1.20%) are M.Phil./PhD students.

Table 2: Academic Status of Frequency Distribution.

Academic Status	Frequency	Percentage
Under Graduate	78	87.60
Post Graduate	10	11.20
M.Phil./PhD	1	1.20
Total	89	100.00

It appears from Table 3, that majority of the respondents (49.40%) use it for studying course work’ purpose while 46.10% respondents for updating subject knowledge, update subject knowledge and 4.50% for teaching methodology.

Table 3: Purpose of Using NPTEL E-Resource.

Purpose	Frequency	Percentage
Studying Course work	44	49.40
Update Subject Knowledge	41	46.10
Teaching Methodology	4	4.50
Research Work	0	0
Total	89	100.00

Fascination of NPTEL online learning; the replies are shown in Table 4. It is clear from the Table 4 that every library users (100%) has an awareness of NPTEL online learning.

Table 4: Fascination in NPTEL Online Learning.

Online Learning	Frequency	Percentage
Yes	89	100.00
No	0	0
Total	89	100.00

The frequency of library users' visit to the library has been for time gap as shown Table 5. Majority of library users 46 (51.70%) were visiting once a week, followed by every day by eight users (9.10%)

Table 5: Frequency of Using NPTEL E-Resources.

Frequency of Using	Frequency	Percentage
Everyday	8	9.10
Once a Week	46	51.70
Occasionally	35	39.20
Total	89	100.00

Table 6: Location for Accessing NPTEL E-Resources.

Location of Accessing	Frequency	Percentage
Library	45	50.60
Department Library	19	21.30
Computer Centre	19	21.30
Home	6	6.80
Total	89	100.00

It appears in Table 6 that 50.60% respondents access information in the library, followed by 21.30% who access in information their departments and computer centres. Thus, majority of the respondents access information in library itself.

Table 7: Importance of NPTEL E-Resources in Academic Side.

Academic Side Importance	Frequency	Percentage
Very Important	42	47.20
Important	45	50.60
Not Important	2	2.20
I don't know	0	0
Total	89	100.00

It comes out in Table 7 that 50.60 respondents were having importance of NPTEL in academic filed, while for 47.20% it was very important, for 2.20% it was not important in electronic resources usages.

Table 8: Awareness of Download of NPTEL E-Resource.

Awareness of Download	Frequency	Percentage
Yes	75	84.30
No	14	15.70
Total	89	100.00

Awareness of download of NPTEL e-resource, the response is shown in Table 8. It is clear from the Table 8 that 84.30% library users responded yes, followed by 15.70 who had no awareness of NPTEL e-resource.

Table 9: Comfortable Format of Downloading NPTEL Videos.

Format for Downloading	Frequency	Percentage
MP4	54	60.70
FLV	32	35.90
3gp	3	3.40
Total	89	100.00

Table 9 shows the comfortable format of downloading NPTEL videos. 60.70% were using MP4, while 35.90% were using FLV, 3.40% utilized 3gp of downloading.

Table 10: Preferable Device in using NPTEL E-Resources.

Device	Frequency	Percentage
Desktop	58	65.20
Mobile	7	7.90
Laptop	24	26.90
Total	89	100.00

Table 10 explains that majority (65.20%) were using desktop devices in NPTEL electronic resources, while 26.90% used laptop, whereas for 7.90% mobile device was preferably utilized.

Table 11: Comfortable Format of Reading Purpose for using NPTEL E-Resources.

Reading Purpose	Frequency	Percentage
HTML	41	46.10
PDF	48	53.90
Other	0	0
Total	89	100.00

NPTEL electronic resources reading purpose; majority (53.90%) of portable document file (PDF) were used, while 46.10% were hypertext markup language (HTML) format comfortable for reading purpose were utilized Table 11.

Table 12: Overall User Satisfaction for the NPTEL E-Resources.

Satisfied	Frequency	Percentage
Yes	80	89.90
No	9	10.10
Total	89	100.00

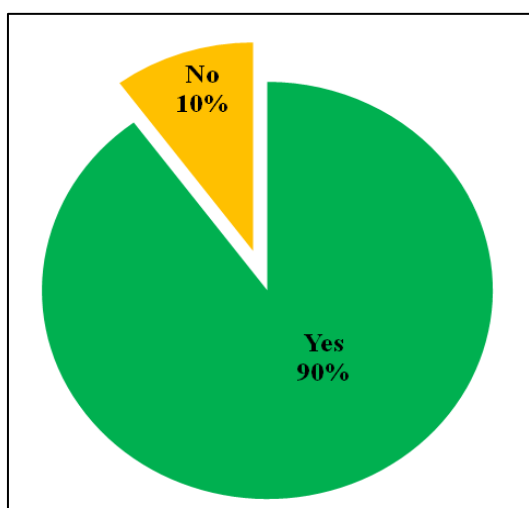


Fig. 2: Overall Satisfaction Level of NPTEL E-Resource.

Overall satisfaction levels of NPTEL online learning, the replies are shown in Table 12. It is clear from the Figure 2 that 89.90% responded yes and 10.10% responded no for satisfaction levels.

Table 13: Problems Faced while Downloading in NPTEL E-Resources.

Downloading Problems	Frequency	Percentage
Yes	13	14.60
No	76	85.40
Total	89	100.00

Table 14 explains problems in NPTEL electronic resources online options. Users were asked questions and quizzed; 93.30% were encouraged 6.70% were not encouraged.

Table 14: Encourage of Ask Questions and Quiz Option for NPTEL E-Resources Programme.

Ask Quiz Option	Frequency	Percentage
Yes	83	93.30
No	6	6.70
Total	89	100.00

Table 15 demonstrates that in 75.30% no respondents was not interested in separate section of NPTEL programme, while 24.70% yes was interested in separate section.

Table 15: Separate Section was Interested in NPTEL E-Resource Programme.

Separate Section	Frequency	Percentage
Yes	22	24.70
No	67	75.30
Total	89	100.00

Table 16: Overall Constraints in Using NPTEL E-Resource.

Purpose	Frequency	Percentage
Inadequate Infrastructure	15	16.80
Very Short Time	29	32.60
Low Speed of Internet	21	23.60
Power Failure	12	13.50
Lack Awareness	12	13.50
Other	0	0
Total	89	100.00

Table 16 clearly shows that 15 (16.80%) respondents faced the problem of inadequate infrastructure followed by 29 (32.60%) of the users who faced the problem of very short time, 21 (23.60%) of the users who found low speed of internet. 12 (13.50%) of the users faced the problem due to power failure and lack of awareness.

Table 17: ANOVA Test for Constraints in NPTEL E-Resource.

Test	Samples					Total with Results
	1	2	3	4	5	
N	1	1	1	1	1	5
-ΣX	15	29	21	12	12	89
Mean (μ)	15	29	21	12	12	17.8
-ΣX ²	225	841	441	144	144	1795
Variance						52.7
Std.Dev						7.2595
Std.Err.						3.2465
F						0
P						1.000000
Df						88
Sig						0.242

When responses were examined about the constraints on NPTEL electronic resources encountered by library users, the data (Table 16) presents that the constraints like inadequate infrastructure, very short time, low speed of internet, power failure and lack of awareness are the major issues faced by the library users ($\mu=12, 8, 7, 5$).

The mean difference is not showing significance at the 0.05 level. Descriptive statistics mean values (μ) because of constraints involve that they consider every mode of electronic resources of users' constraints. The statistical hypothesis test used to compare the means of three or more groups is the analysis of variance (ANOVA). The test statistic for an ANOVA called an F-value. A relatively small F-value suggests that the difference among groups is largely due to chance natural variation and measurement error, rather than to a given variable or manipulation. A significant F-ratio tells you only that the aggregate difference among the means of the several samples is significantly greater than zero. However, affiliation of ANOVA (Table 17) indicate that no significant difference ($F=0, Sig=0.242$) exists between the constraints mentioned by the library users [5].

CONCLUSION

The survey explores the NPTEL electronic resources of library users' needs in academic education of Anna University, Chennai campus. It was found that respondents used an assortment of information sources for studying course work. It is interesting to note that, although respondents perceived the library as effective in meeting their electronic resources, they prefer to first consult their desktop and laptop devices. It might be due to easy and convenient access and downloading to MP4 format.

The study revealed that the constraints are; very short time and low speed of internet. The overall satisfaction level is good for information literacy of NPTEL programme.

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