P.G Integrated Mathematics Students' Perceptive of Open Resources in the Academic Library with Reference to Manonmaniam Sundaranar University

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Abstract:

Open educational resources (OER) are strategically used in higher education and recognised as a social movement. This paper outlines the P.G Integrated Mathematics Students Perceptive of Open Resources in the Academic Library concerning Manonmaniam Sundaranar University. For this study, the researcher constructed a strong questionnaire and distributed the same to 125 students in the mathematics department at Manonmaniam Sundaranar University, Tirunelveli. The researcher received 110 fully completed responses from the respondents.

Key Words: P.G Integrated Mathematics Students, Perceptive, Academic Library, Manonmaniam Sundaranar University

1. Introduction:

Various OERs are enriching the education systems world over. The use of OERs holds great promise of improving access to and the overall quality of education, especially for a developing country like India. Learning resources form an integral part of the entire teaching-learning process. A learning resource may be any element or component of the teaching or learning process used to facilitate learning and stimulate student perception and attention. According to OECD (2009), a learning resource can refer either to any help used by teachers and students for learning or to resources mainly designed to be used in learning settings. Littlejohn, Falconer and McGill (2008) mentioned that print-based resources, which are integral to teaching across all education sectors, have evolved with time. In the last few decades, there have been

significant changes in teaching methods and the availability and affordances of new types of resources based on digital technologies.

The methods, approaches and resources used by the educators to provide instruction significantly impact the entire teaching-learning process (Littlejohn, Falconer & Mcgill, 2008; Barrett et al., 2007; Cohen, Raudenbush & Ball, 2002). Traditional teacher-centred teaching methods involving instruction in the form of lectures are found to be inadequate for promoting critical thinking and imparting professional values (Duckworth, 2009; Bligh, 2000; Haynes, 1999; Marshall, 1992). With the move toward learner-centred learning, there is an emphasis on the use of learner-centred instructional methods in an active learning environment where students engage actively in the learning process through participation in collaborative activities and discussions (Prince, 2004; Weimer, 2002; Felder & Brent, 1996). The use of learning resources (in various formats such as images, audio/videos, multimedia simulations and so on) becomes crucial in these active learning environments to teach higher-order thinking skills to students.

The term ―digital learning resources‖ is used to refer to any digital resource teachers, and learners use for learning. A digital learning resource is both an artefact and a semiotic tool, potentially more significant than traditional textbooks (OECD, 2009). Many reusable digital learning resources are available through search engines and repositories (Leacock & Nesbit, 2007). This makes it necessary for educators to acquire new approaches to teaching and learning, access different resources, and adapt and use them across other educational models.

2. Profile of sample unit:

Manonmaniam Sundaranar University (MSU) is a dynamic institution of higher learning set in a rural milieu of southern Tamil Nadu, with a campus spread of 550 acres. The University was established by the Government of Tamil Nadu as a teaching-cum-affiliating University on 7th September 1990, to cater to the long-felt needs of the people of the three southernmost districts of Tamil Nadu, viz., Tirunelveli, Tenkasi, Thoothukudi, and Kanyakumari. It is named after the renowned Tamil Poet scholar, Professor P. Sundaram Pillai (1855-1897), the author of the famous verse drama Manonmaniam. His poem has become "Tamil Thaai Vazhthu", the official invocation song sung in all functions in Tamilnadu.

The Department of Mathematics, Manonmaniam Sundaranar University, was established in 1992 with a mission to offer Post graduate degrees and Research Programs in Mathematics. The faculty members of the department are intensive researchers. The department has many externally funded research projects granted by funding agencies, including UGC, DST, DRDO etc.

3. Review of Literature:

Sapna Rani; Payare Lal (2019) explains that 'Web technology and its applications are matters of great concern in this highly innovative environment and shaping this world so that every new possibility has a chance of contemporary creativity and innovation. The main objective of this paper is to present the findings of a webometric analysis of websites of state health sciences universities of India. This study was conducted in September 2018 using Alexa Traffic Rank, Google Page Rank and Google search engine for rich files of respective websites of 18 state health sciences universities of India. As per the Alexa Traffic Ranking, Dr N.T.R. University of Health Sciences and Sri Venkateswara Institute of Medical Sciences universities of Andhra Pradesh State were top. Ayush and Health Sciences University of Chhattisgarh State leads the Google Page ranking system list of universities. The Nizam's Institute of Medical Sciences of Telangana State was placed in 1st rank for rich files. The present study will provide information to eliminate the barriers to improving the websites of state health sciences universities in India to make these websites more effective in fulfilling users' needs.

Samsul Farid Samsuddin; Siti Zobidah Omar; Hayrol Azril Mohamed Shaffril (2021) This study investigates the relationship between ICT facilities and behavioural factors with positive youth development among rural youth in Malaysia gratification of ICT usage in the rural library as the mediating effect. The child in rural areas is inclined to involve in negative affairs due to non-established beneficial activities. Therefore, the government has taken initiatives to equip rural libraries with ICT facilities and services to support social and academic activities amongst youth. 400 respondents comprising rural library users in Peninsular Malaysia aged 15 to 40 were surveyed through multi-stage cluster simple random sampling. A survey method was employed, and the analysis was conducted using Structural Equation Modelling (SEM). The results revealed that gratification of ICT usage among youths in the rural library does not significantly mediate the relationship between ICT and specific behavioural factors in positive youth development.

The finding indicates that respondents were not entirely dependent on ICT facilities in their undertakings provided in the rural libraries. This study highlights several implications and recommendations for policymakers and practitioners towards improving ICT provisions in rural libraries in Malaysia.

Balasubramanian and Santhanakumar (2022) analysed a "Torrential impact of discursive digitised repositories in the university libraries of Tamilnadu". The study has questionnaire-based survey methods used. A questionnaire was designed and administered to the users of university libraries in Tamilnadu to investigate information-seeking behaviour. Data were collected through the surveys based on a well-structured questionnaire. The study showed that members used various information sources to pursue their teaching, research and academic work. The study focused on the use of online resources. Some respondents preferred books/reference books, law reports, statutes and journals. It revealed that several respondents preferred ICT-based library resources to print resources, with most stating that they have excellent computing skills. This use may be due to the availability and advancement of e-resources. It concludes that it will help library and information science and its users.

4. Statement of Problem:

The increasing use of digital content and technologies in education stressed the need to facilitate ease of use, replication, and sharing of educational content among educators. The concept of the learning object is related to the idea behind open educational resources as it is based on the premise of the reuse of instructional material in different educational contexts. The concept, which also led to the creation of open content license, was based on the principles of free/open source software and the intent of using it in the case of educational materials and other content. The present study analyses the respondents' satisfaction with the open sources available in the Manonmaniam Sundaranar University library.

5. Objectives of the study:

- → To analyse the respondents' purpose for visiting the library
- → To measure the respondent's satisfaction level with the library's open resources.

6. Null and Alternative Hypotheses:

H$_0$: The impact of open resources of the Manonmaniam Sundaranar university library does not influence the respondents' satisfaction.

H$_1$ The impact of open resources of the Manonmaniam Sundaranar university library influences the respondents' satisfaction.

8. Methodology:

The researcher tries to analyse the P.G Integrated Mathematics Students Perceptive about Open Resources in the Manonmaniam Sundaranar University library. The researcher constructed a strong questionnaire based on previous studies. The researcher distributed 125 questionnaires among the integrated P.G students of the matamatas department. The researcher received 110 fully completed questionnaires from the respondents.

9. Limitations:

⇒ The sample size is limited.

⇒ The study is based on primary data only, so the analysis results depend on the truthfulness of the responses from the respondents.

10. Data Analysis and Interpretation:

Table:1

Purpose of Visiting Library

Sl.no	Particulars	Response			WAM	Rank
	Purpose of visiting	1	2	3		
1	Using electronic information resources	61	37	12	3.891	I
2	Issue & Return Books	44	45	21	3.418	IV
3	Reading periodicals	45	46	19	3.473	III
4	Consulting reference materials	54	42	14	3.727	II
5	Newspapers Reading	41	38	31	3.182	V
6	Data collection for Assignments, specific information	44	28	38	3.109	VI

(Source: Primary Data)

Table 1 exhibits the ranking of the library's students: the first rank given to Using electronic information resources and corresponding WAM is 3.891, the second for Consulting reference materials, the third for Reading periodicals and the sixth for allotted to Data collection for Assignments and specific information.

Table:2

Sources for knowing about Library Open Resources

Sl.no	Particulars Sources	Number of Respondents	Percentage
1	Library staff	13	11.82
2	Friends	18	16.36
3	Library websites	39	35.45
4	Teachers	28	25.45
5	Library orientation programme	12	10.91
	Total	**110**	100

SOURCE: Primary Data

Fig 1

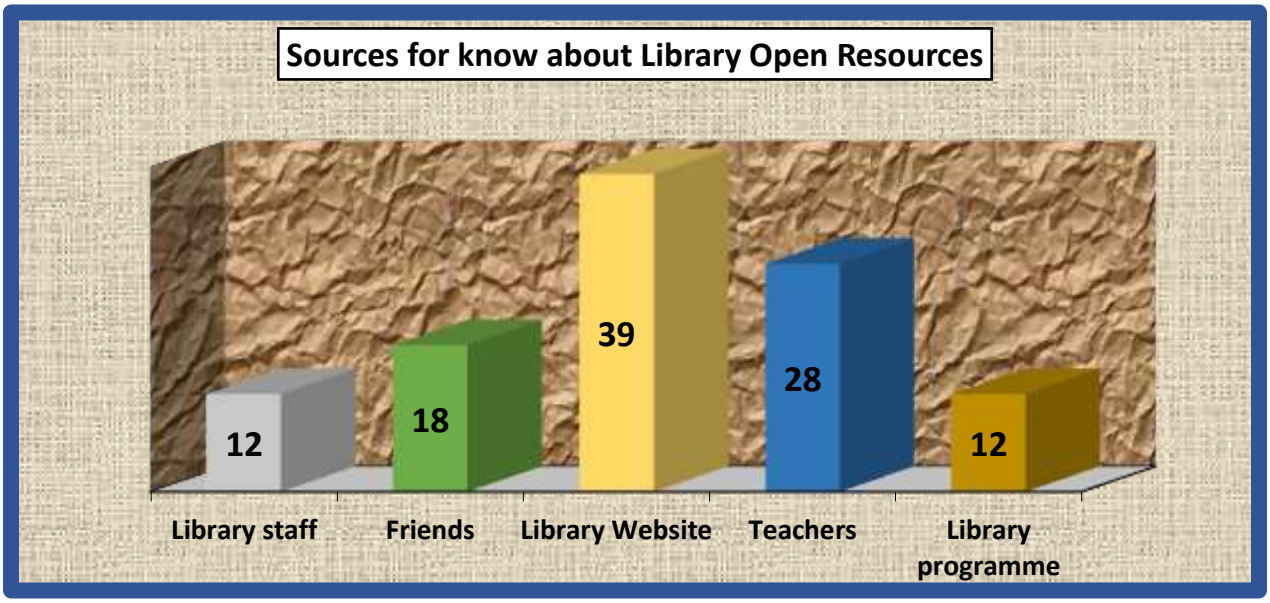

Table 3 reveals sources through which the respondents know about the open resources available in the university library. It is understood that 35.45 per cent of the respondents are known about library open resources through Library websites, 25.45 per cent of the respondents are known about it through teachers, 13.36 per cent of the respondents through teachers, and 16.36 per cent of the respondents known by Friends. It is further noted that 10.91 per cent of the respondents learn about library open resources through the library orientation programme

Table:3

A device used to access Open Resources

Sl.no	Particulars	Response			WAM	Rank
	The device used to access Open Resources	1	2	3		
1	Computer in the University Library	57	37	18	3.764	I
2	The computer of other Libraries	45	34	31	3.255	IV
3	Laptop/Notebook (If Wi-Fi campus)	39	54	17	3.400	II
4	Mobile phone (If Wi-Fi campus	41	42	27	3.257	III
5	IPad/ Tablets (If Wi-Fi campus	42	38	30	3.218	V

(Source: Primary Data)

Table 4 shows the ranking of members' responses towards devices used to access open resources of the Manonmaniam Sundaranar university library. The computer in the University Library ranks first with a WAM of 3.764. The following device is Laptop/Notebook (If the Wi-Fi campus) receives the next rank with 3.400. "Mobile phone (If Wi-Fi campus" gets the third rank ", Computer of other Libraries" gets the fourth rank, and the fifth rank allotted to IPad/

Tablets (If Wi-Fi campus). It is observed from the above table that the majority of the members are interested in using the library computers.

Table:4

Impact of Open Resources

Sl.no	Particulars	Response			WAM	Rank
	Impact of Open Resources	**1**	**2**	**3**		
1	Easier & broader access to E-resources	44 (40.00)	45 (40.91)	21 (19.01)	3.418	**III**
2	Improved the quality of the library	45 (40.91)	47 (42.73)	18 (16.36)	3.491	**I**
3	Direct access to the Service & Resources	49 (44.55)	38 (34.55)	23 (20.91)	3.473	**II**
4	Easy locating materials	39 (35.45)	41 (37.27)	30 (27.27)	3.164	**VI**
5	More flexible	41 (37.27)	38 (34.55)	31 (28.18)	3.182	**V**
6	Up-to-date information	44 (40.00)	39 (35.45)	27 (24.55)	3.309	**IV**
7	Enormous saving in time and effort	39 (35.45)	34 (30.91)	37 (33.64)	3.036	**VII**

(Source: Primary Data)

Table 4 describes the positive impact of open resources. Respondents' responses are acknowledged with the help of a three-point scaling procedure and assigned rank according to their importance. The first rank given to the statement Improved the quality of library because the weighted average mean 3.491, second rank allotted to Direct access to the Service &

Resources with WAM 3.473, the third rank agreed to Easier & broader access to E-resources and fourth and fifth assigned to the statements Easy locating materials More flexible and the last rank agreed to the Enormous information saving in time and effort.

Table:5

Association between Demographic profile of Respondents and Positive Impact of Information Technology

Tests of Between-Subjects Effects					
Dependent Variable: Satisfaction of respondents					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.869[a]	8	.109	.306	.002
Intercept	489.020	1	489.020	1379.232	.000
Gender	.467	2	.234	.659	.020
Age of the Respondents	.086	2	.043	.321	.006
Socio economic status	.298	1	.298	.840	.002
Residential area	.127	2	.063	.379	.036
Error	35.811	101	.355		
Total	1258.911	110			
Corrected Total	36.679	109			
a. R Squared = .614 (Adjusted R Squared = -.541)					

Table 6 discloses the Univariate Analysis of Variance between the profile of respondents and the satisfaction of the respondents with the open resources of the library. The F value for the category of the respondent, Gender, Age of the Respondents, Socioeconomic status and Residential area are 0.659, 0.321, 0.840 and 0.379, respectively, and the corresponding 'p' values are 0.020, 0.006, 0.002, and 0.036. In all the cases, the probability value(Significance) is less

than 0.05 at a 95 per cent confidence level. Hence it is concluded that the null hypothesis is rejected and the alternative hypothesis "There is a significant relationship between Positive Impact of open resources of the library and satisfaction of the respondents.

11. Findings

→ Most of the members visited the library to use the e-resources of the library.

→ It is found that 35.45 per cent of P.G students know about open of the library from its website

→ Most of the respondents use a library computer to avail themselves of e-resources in the library

→ Library quality is improved with the help of I.T based services.

13. Conclusion

Open educational resources (OER) are strategically used in higher education and recognised as a social movement. The Open Educational Resources (OER) movement links to the Open Access to scientific journals and Open Software movements. Information technology has affected the processes of library and information services, which has also significantly impacted the education and training of the users on various levels. OER has already been used in several Organisations as a strategic organisational measure. University libraries are using information technology to increase the efficiency and effectiveness of their daily library work and services.

Reference:

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