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# Awareness and Use of Research Support Tools by Researchers of Manipal Institute of Technology, MAHE, Manipal: An Analytical Study

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**Abstract:** Research tools and data play an increasingly important role in research. The research tool can save time and add depth to qualitative work. Researchers need scholarly publications to read, study and to write a research article. As it is well known that the internet through the research tools has made this process more fruitful. Therefore it is necessary to think more critically about sources and more effectively organize all the different kinds of digital research tools they find. There are many different research support tools that are available to help and to select proper information for research. This study highlights the awareness and use of various research support tools subscribed by MIT library i.e. OPAC, bibliographical databases, discovery tool, spelling checker, Journal Citation Report (JCR), anti-plagiarism software, reference management tool, remote access facility, institutional repository etc. After the survey it is found that some of the researchers are not aware about the availability of some new research support tools available in the library like discovery service, remote access facility etc. But the tools like bibliographical databases and anti-plagiarism software are more used and appreciated by the research scholars. Usage of resources can be improved by conducting literacy programmes, by publishing research support guides etc.

**Key words:** Anti-plagiarism software, Bibliographical databases, Discovery tool, Institutional repository, Journal Citation Report (JCR), OPAC, Reference management tool, Remote access facility, Research, Spelling checker.

#### 1. INTRODUCTION:

The research and education functions as two sides of a coin, research makes a higher level of education possible and education, in turn, develops the human resources to do research. Research is the common parlance refers to the search for knowledge. It is any activity which helps to gain fresh insight into something. Research is an endeavor to arrive at answers to intellectual and practical problems through the application of scientific methods to the knowledgeable universe. Research support tools promote the research process of a researcher. The research tools can minimize the effort /difficulty of the researcher in their research work. These tools will escort the researcher how to search beyond Google, and to catch suitable resources, and to use these resources for their research.

#### 2. REVIEW OF LITERATURE:

Thirumagal, M. Mani and R. R. Saravanakumar (2018)<sup>1</sup> have studied "Use of Online Public Access Catalogue [OPAC]" among students of Sadakathullah Appa College in Tamil Nadu. The study aimed at examining the level of awareness and use of OPAC. OPAC is an imperative device in the libraries to offer a moral support to the students and it is considered as a portal to library assets. The result of the study indicates that OPAC is used frequently by the users under study but few respondents feel that some training is required.

J Bates and others (2017)<sup>2</sup> discuss about "Will Web Search Engines Replace Bibliographic Databases in the Systematic Identification of Research" among researchers in Queens University Belfast. This paper has been written to assist scholars, academic librarians and information specialists in making best use of bibliographical databases. The study reveals that the sensitivity in retrieving material relevant to an identified scholarly topic was only at the level of the weaker bibliographic databases for the search strategy reported here. This study reporting comparisons between web search engine and database searching were disappointing in terms of search details reported, presenting problems for replication.

Vinit Kumar (2018)<sup>3</sup> conducted a study under the title "Selecting an Appropriate Web-Scale Discovery Service". The paper reported the Web Scale-Discovery service is the latest attempt in this direction. This provides help to explain in detail the components of a typical Web Scale Discovery service system. The paper concludes by discussing some of the parameters to consider while evaluating the Web-Scale Discovery system.

Alexander Maz-Machado and others (2015)<sup>4</sup> conducted a study under the title "Collaboration in the Iberoamerican Journals in the category Information Science and Library Science in WOS". This article

presents a bibliometric study about collaboration in the Iberoamerican journals indexed in the Journal Citation Report (JCR) within the category Information Science and Library Science. The result of this study indicates that international collaboration in the articles is minimum and almost all of its findings are national.

P. K Suresh Kumar (2019)<sup>5</sup> conducted a study under the title "Similarity Index of Doctoral Theses" in ShodhGanga by the universities in Kerala. This study aims to describe various aspects of anti-plagiarism software (Urkund). This study finds that science subject shows least similarity index rather than the social science. The paper points out the importance of user awareness programmes and training programmes on anti-plagiarism for the research scholars and library staff.

#### 3. NEED FOR THE STUDY:

Manipal Institute of Technology, MIT, Manipal, a constituent institute of MAHE has a very good central library which has many research support tools in its collection. They are Online Public Access Catalogue (OPAC), Bibliographical Databases (Scopus, web of science), Discovery Tool (Single Window Search), Spelling Checker (Grammarly), Journal Citation Report (JCR), Anti-Plagiarism Software (Turnitin), Reference Management Tool (Endnote, Mendeley), Remote Access Facility (EZ proxy), Institutional Repository (Eprints) etc. The links to access these tools are provided in the library we page. Many research scholars are doing research in various disciplines at MIT. An attempt is made to know about the awareness and use of these tools among research scholars. Such a study was not conducted so far and the result of the study can be used to improve the services of the library. Hence this topic is selected for the study.



Fig.1: Web Page of MIT Central Library, MAHE

#### 4. STATEMENT OF THE PROBLEM

The problem is entitled "Awareness and use of research support tools by researchers of Manipal Institute of Technology, MAHE, Manipal: An analytical study".

#### 5. OBJECTIVES OF THE STUDY

The main objectives of the study are:

- To know about the awareness of Research Support Tools among the researchers.
- To know the use of various Research Support Tools available in the library.
- To know about the difficulties or barriers in using the research support facility.

#### 6. METHODOLOGY

To collect the data for the study, survey methodology is used. For collection of the data structured questionnaire was distributed among the research scholars of Manipal Institute Technology, Manipal Academy of Higher Education, Manipal. The questionnaire was distributed to the registered research scholars (both full time and part-time). 262 registered research scholars are available and the questionnaire was distributed to all the research scholars. Out of 262 research scholars, 198 have responded. The total responses received for the study is 75.57%.

#### **Table 1 Population size**

No. of Registered Research Scholars	No. of Questionnaire distributed	Total No. of filled-in questionnaire received	Percentage of responses (%)
262	262	198	75.57

#### 7. DATA ANALYSIS:

#### 7.1 Questionnaire Distribution: Gender Wise

The table 2 and fig. 2 depicts that the majority of the respondents are male i.e., 55.1% (109) and 44.9% (89) respondents are female.

Sl. No.	Gender	Total Number of Respondents	Percentage (%)
1	Male	109	55.1
2	Female	89	44.9
	Total	198	100.0

Table 2. Gender wise distribution of respondents

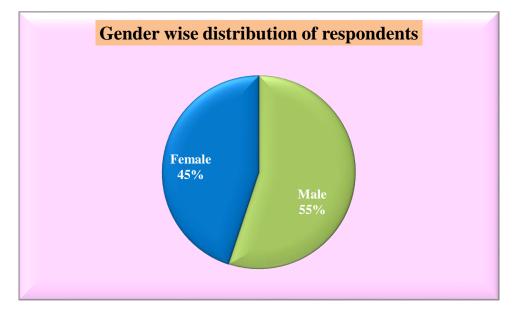


Fig. 2. Gender wise distribution of respondents

#### 7.2 Awareness about Research Support Tools

Table 3 and Fig. 3 shows the awareness about research support tools among the research scholars of MIT. Table indicates that 86.4% of respondents are aware about online public access catalogue (OPAC), 97.5% are aware about bibliographical databases, 73.2% are aware about discovery services, 93.9% are aware about spelling checker, 72.7% are aware about journal citation report, 100% are aware about anti-plagiarism software, 87.9% are aware about reference management tool, 67.7% are aware about remote access facility, 80.3% are aware about institutional repository. Any way it was found that all the researchers are aware about the anti-plagiarism software.

SI. No.	Research Sunnort Tools		onses	Percentage (%)	
INO.			No	Yes	No
1	Online Public Access Catalogue (OPAC)	171	27	86.4	13.6
2	Bibliographical Databases (Scoups, web of science)	193	5	97.5	2.5
3	Discovery Tool (Single Window Search)	145	53	73.2	26.8
4	Spelling Checker (Grammarly)	186	12	93.9	6.1
5	Journal Citation Report (JCR)	144	54	72.7	27.3
6	Anti-Plagiarism Software (Turnitin)	198	0	100.0	0
7	Reference Management Tool (Endnote, Mendeley)	174	24	87.9	12.1
8	Remote Access Facility (EZ proxy)	134	64	67.7	32.3
9	Institutional Repository (Eprints)	159	39	80.3	19.7

#### **Table 3. Awareness about Research Support Tools**

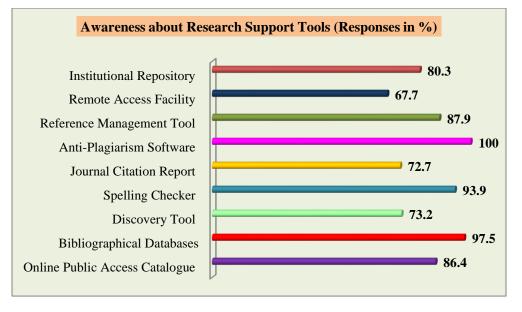


Fig. 3 Awareness about Research Support Tools

#### 7.3 Usage of Research Support Tools

While seeking the reply of the respondents about the usage of Research Support Tools provided in the library they gave different opinions as tabulated below. The analyzed data reveals the majority of respondents (67.2%) are using Online Public Access Catalogue (OPAC). Bibliographical Databases (Scoups, web of science) are used by 96% of respondents. 45.5% of respondents use discovery tool (Single Window Search), 80.3% respondents use Spelling checker (Grammarly), 55.1% respondents use Journal citation report (JCR), 97% of respondents use Antiplagiarism software (Turnitin), 71.2% of respondents use Reference management tool (Endnote, Mendeley), 43.4% of respondents use Remote access facility (EZ proxy) and 56.6% of respondents use Institutional repository (Eprints). Any way it was found that many of the researchers are using the Bibliographical databases and use of Anti-plagiarism software by researchers is more when compared to other research support tools.

#	# Research Support Tools		Responses		Percentage (%)	
			No	Yes	No	
1	Online Public Access Catalogue (OPAC)	133	65	67.2	32.8	
2	Bibliographical Databases (Scoups, Web of Sc.)	190	8	96.0	4	
3	Discovery Tool (Single Window Search)	90	108	45.5	54.5	
4	Spelling Checker (Grammarly)	159	39	80.3	19.7	
5	Journal Citation Report (JCR)	109	89	55.1	44.9	
6	Anti-Plagiarism Software (Turnitin)	192	6	97.0	3	
7	Reference Management Tool (Endnote, Mendeley)	141	57	71.2	28.8	
8	Remote Access Facility (EZ proxy)	86	112	43.4	56.6	
9	Institutional Repository (Eprints)	112	86	56.6	43.4	

Table 4. Usage of Research	Support Tools
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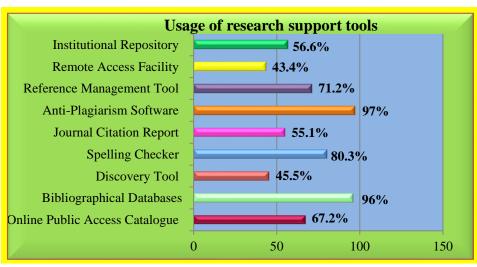


Fig. 4 Usage of Research Support Tools

#### 7.5 Problem Faced by the researchers While Using research support tools:

A question was asked to know the problem they are facing while using research support tools. Majority (74.7%) of users are not facing any problem and 25.3% of the users have mentioned that they are facing problem while using the tools.

Sl. No.	Variables	<b>Total Number of Respondents</b>	Percentage (%)
1	Yes	50	25.3
2	No	148	74.7
	Total	198	100.0

Table 5. Problem faced by the researchers

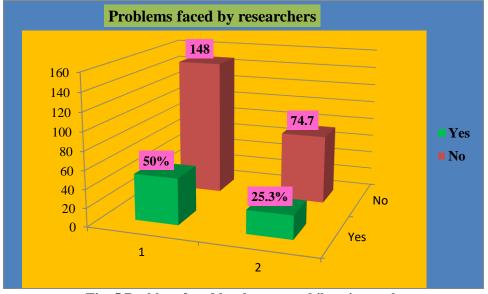


Fig. 5 Problem faced by the users while using tools

#### 7.6 Types of Problem Faced by the Users while using Bibliographical Databases

Table 6 and figure 6 shows that the users are facing different problems while using bibliographical databases. Majority of the respondents (15.2%) stated that the lack of awareness about bibliographical databases is a problem. 9.6% of them have mentioned that they are unfamiliar with its use and services, 6.1% of them mentioned that search features are not clear in bibliographical databases.

Sl. No.	Types of Problem		Total No. of Responses		Percentage (%)	
		Yes	No	Yes	No	
1	Lack of awareness about bibliographical	30	168	15.2	84.8	
	databases					
2	Unfamiliar with its use and services	19	179	9.6	90.4	
3	Search features are not clear in	12	186	6.1	93.9	
	bibliographical databases					

Table 6. Types of Problem faced by the users while using bibliographical databases

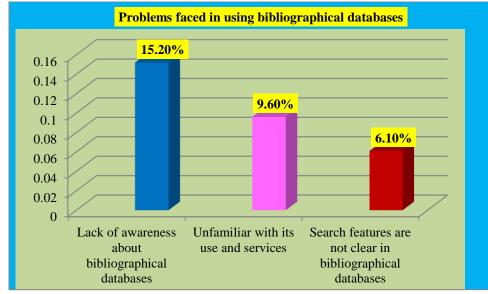


Fig. 6 Types of Problem faced by the users while using bibliographical databases

#### 7.7 Problems While Accessing the E- Resources Remotely

18.2% of the respondents are facing problems while using e-resources remotely and 17.2% of the respondents are not facing any problem. It is further observed that majority of the respondents are not aware about the remote access facility provided by the library.

Sl. No.	Variables	Total Number of Respondents	Percentage (%)
1	Yes	36	18.2
2	No	34	17.2
3	Not Responded	128	64.6
	Total	198	100.0

Table 7 Problems while accessing the e- resources remotely

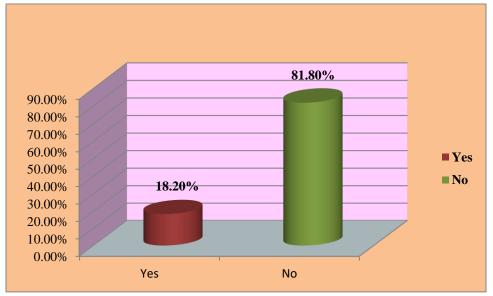


Fig. 7. Problems while accessing the e- resources remotely

### 7.8 Type of Problem Faced By the Users While Accessing the E- Resources Remotely

Table 8 and figure 8 shows that the users are facing different problems while using eresources remotely. 8.6% (17) of respondents have mentioned that full text is not downloading in the Remote access facility, 8.1% (16) of respondents have stated access authentication problem, 6.1% (12) of users are facing network problem in Remote access facility.

Sl. No.	Types of Problem of Single Window Search facility	Total No. of Responses		Percentage (%)	
		Yes	No	Yes	No
1	Full text not downloading	17	181	8.6	91.4
2	Access authentication	16	182	8.1	91.9
	problem				
3	Facing network problem	12	186	6.1	93.9

 Table 8. Problems faced by the users accessing the e- resources remotely

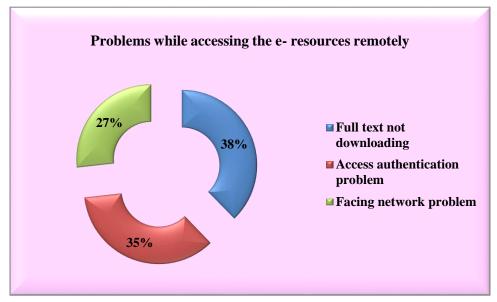


Fig. 8. Problems faced by the users accessing the e- resources remotely

## 7.9 Training Requirement

A study question is asked to the users to understand the requirement of training. Table 9 and figure 9 show that majority 80.8% (160) of the respondents expressed that they require training so that they can use the research support tools effectively.

Sl. No.	Variables	<b>Total Number of Respondents</b>	Percentage (%)
1	Yes	160	80.8
2	No	38	19.2
	Total	198	100.0



**Fig.9 Training requirement** 

#### 8. FINDINGS OF THE STUDY:

Based on survey results, following are the few significant findings of the study "Awareness and use of research support tools by researchers of Manipal Institute of Technology, MAHE, Manipal: An analytical study."

- Awareness about research support tools: It has been observed that 86.4% of respondents are aware about online public access catalogue (OPAC), 97.5% are aware about bibliographical databases, 73.2% are aware about discovery services, 93.9% are aware about spelling checker, 72.7% are aware about journal citation report, 100% are aware about anti-plagiarism software, 87.9% are aware about reference management tool, 67.7% are aware about remote access facility, 80.3% are aware about institutional repository. Any way it was found that all the researchers are aware about the anti-plagiarism software.
- Usage of research support tools: The survey revealed that majority of respondents (67.2%) are using Online Public Access Catalogue (OPAC). Bibliographical Databases (Scopus, Web of science) are used by 96% of respondents. 45.5% of respondents use Discovery Tool (Single Window Search), 80.3% respondents use Spelling Checker (Grammarly), 55.1% respondents use Journal Citation Report (JCR), 97% of respondents

use Anti-Plagiarism Software (Turnitin), 71.2% of respondents use Reference Management Tool (Endnote, Mendeley), 43.4% of respondents use Remote Access Facility (EZ proxy) and 56.6% of respondents use Institutional Repository (Eprints). Any way it was found that many of the researchers are using the Bibliographical Databases and Anti-Plagiarism software more when compared to other research support tools.

- Problem faced by the users while using research support tools: From the study it is revealed that majority of (74.7%) users are not facing any problem while using the different tools.
- Types of problem faced by the users while using bibliographical databases: The data analysis shows few of the users are facing different problems while using bibliographical databases. 15.2 % of the respondents stated that the lack of awareness about bibliographical databases is a problem. 9.6% of them have mentioned that they are unfamiliar with its use and services, 6.1% of them mentioned that search features are not clear in bibliographical databases.
- Problems while accessing the e- resources remotely: 18.2% of the respondents are facing problems while using e-resources remotely and 17.2% of the respondents are not facing any problem. It is further observed that majority of the respondents are not aware about the remote access facility provided by the library.
- Type of problem faced by the users while accessing the e- resources remotely: It is found that the users are facing different problems while using e-resources remotely. 8.6% (17) of respondents have mentioned that full text is not downloading in the Remote access facility, 8.1% (16) of respondents have stated access authentication problem, 6.1% (12) of users are facing network problem in Remote access facility.
- Training requirement: Majority of (80.8%) respondents expressed that they require training so that they can use the research support tools effectively.

#### 9. CONCLUSION:

The advancement in technology has helped researchers to reduce considerable amount of time required to complete the research programme. If the research support tools are effectively used, utilizing their actual potential, then definitely the researcher can attain his objective in limited time. It is often seen that the true prospects of these tools are often not exploited in the way it should be.

The availability of various research support tools in library has helped the researchers of MIT. Many of the users are aware but Faculty and researchers needs to be trained more to get the actual benefit.

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