USE OF N-LIST RESOURCES BY THE FACULTY MEMBERS OF COLLEGES IN AIZAWL CITY

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PHILOSOPHY IN LIBRARY AND INFORMATION SCIENCE

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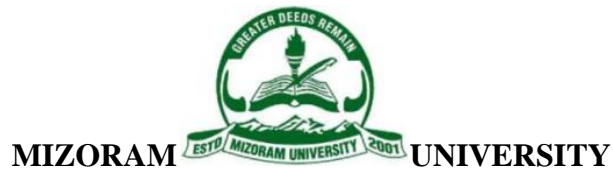
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CERTIFICATE

This is to certify that the dissertation entitled **"Use of N-LIST Resources by the faculty members of Colleges in Aizawl City"** submitted by Lalhmangaihsangi Sailo for the award of Master of Philosophy in Library and Information Science carried out under my guidance and incorporates the students bona fide research and this has not been submitted for award of any degree in this or any other university or institute of learning.

Date : 9.09.2021   (Prof. Pravakar Rath)

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DECLARATION

Mizoram University
September, 2021

I, Lalhmangaihsangi Sailo hereby declare that the subject matter of this dissertation is the record of work done by me, the contents of this dissertation did not form basis of the award of any previous degree to me, or to do the best of my knowledge to anybody else and that the dissertation has not been submitted by me for any research degree in any other university/institute.

This is being submitted to the Mizoram University for the Degree of Master of Philosophy in the Department of Library and Information Science.

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LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation	Description
AICTE	All India Council for Technical Education
CAS	Current Awareness Service
DL	Digital Libraries
DUL	Dhaka University Library
E – Resource	Electronic Resource
HATIM	The Higher and Technical Institute of Mizoram
ICFAI	Institute of Chartered Financial Analysts of India
ICT	Information and Communication Technology
INFLIBNET	Information Library Network
KNUST	Kwame Nkrumah University of Science & Technology
MZU	Mizoram University
NDL	National Digital Library
NAAC	National Assessment and Accreditation Council
N-LIST	National Library and Information Services Infrastructure for Scholarly Content
RTI	Right to Information
SDI	Selective Dissemination of Information
SOUL	Software for Universities Libraries
UGC	University Grants Commission

CHAPTER – 1

INTRODUCTION

1.1 Introduction

The emergence, growth and popularity of information and knowledge society have a great impact on knowledge and learning. This has necessitated a large number of e-resources and its usage for academic and research development. The E-resources plays a vital role in all over the world, it is accepted by all kinds of people because of its accessibility, affordability, usability and readability. E-resources have a prominent role to play in supporting higher education and in fulfilling educational objectives. E-resources are rich source of information for those students as well as teachers and scholars.

Advances in Information and Communication Technology (ICT) applications during the past few decades have brought radical changes in the way information is gathered, store, organized, accessed, retrieved and consumed. The application of computers in information processing has brought several products and services to the scene. The Internet and the Web are constantly influencing the development of new modes of scholarly communication; their potential for delivering goods is quite vast, as they overcome successfully the geographical limitations associated with the print media. Further, the distribution time between product publication and its delivery has been drastically reduced. The Internet can be used for efficient retrieval and meeting information needs. This important fact is convincing many libraries to move towards digital e-resources, which are found to be less expensive and more useful for easy access.

1.2 Scope and Significance of the Study

Electronic Resources are becoming very important these days as they are more up-to-date, and can be accessed anywhere, crossing all geographical boundaries. E-resources are rich source of information. It can be says that college faculty members play the most important role for the development of colleges, they are the backbone of education in Mizoram.

The scope of the present study is confined to the faculty members of colleges those are member of N-LIST located in the area of Aizawl city. There are 9 colleges situated

within the boundary of Aizawl city (as shown in Table1). As per the statistics available in the N-LIST website (https://nlist.inflibnet.ac.in/) , 8 colleges have registered from the city of Aizawl. N-LIST e-resources are considered important component of academic activities. The present study assumes great importance in view of the growth and popularity of e-resources and its use by the faculty members to enhance teaching, learning and research activity. The present study with further explore the extent of use of e-resources provided by N-LIST, their effectiveness and benefits to college faculty members and to identify technical and technological barriers in accessing these e-resources.

Table 1.1 Colleges in Aizawl City

Sl.no	Name of the College	Year of Estd.	No. of faculty Members	N-LIST Membership
1	Pachhunga University College	1958	100	Yes
2	Govt. Aizawl College	1975	55	Yes
3	Govt. Hrangbana College	1980	71	Yes
4	Govt.Zirtiri Residential Science College	1980	59	Yes
5	Govt. Aizawl North College	1988	27	Yes
6	Govt. Aizawl West College	1990	36	Yes
7	Govt. T.Romana College	1992	38	Yes
8	Govt J.Thankima College	1992	24	Yes
9	Govt. Johnson College	1993	28	No

1.3 Review of Literature

A considerable amount of literature was available in the present area of study. The scholar has taken a thorough review and an extensive survey of literature of published literature in the concerned area, in which some of them are included here.

Chanchinmawia and Verma (2020) on their study the awareness and used of e-

shodhsindhu digital library consortium among faculty members and research scholar of Mizoram University, they found that it is very helpful for them and it produces a lot of helpful impact on their academic and research performance. E-Shodhsindhu e-journals are perceived as a tool with positive impact and this learning has assisted to respondents to state their satisfaction and wish for improvement.

Bansode and Burungale (2019) in their study 'Usages and effectiveness of INFLIBNET N-LIST programme : A study' It reveals that majorities of college libraries put more emphasis on the use of INFLIBNET N-LIST consortia. It increase the accessibility of updated knowledge published in various subjects. N-LIST is emerging consortium which is very useful to faculties and students in their learning and research development activity. It becomes a major consortia platform in India especially for traditional colleges. It covers the contents of most of subjects. It is also great coverage in learning and research activities.

Hachinal (2019) in his study 'Awareness and usages of e-resources of N-LIST Consortium : A study with reference to academic colleges of Mumbai.' It is found from the data that 50% of the respondents have not accessed e-resources of NLIST programme. E-books are the highly used e-resources among different types of e-resources of N-LIST, as many as 88 respondents have accessed e-books for their study. 89 respondents do not know about e-resources of N-LIST consortium. The results of the study revealed that majority of the respondents said that the main purpose of using N-LIST is to prepare 'Class Notes' & 'Assignments'. It is found from the study that 'Lack of Infrastructure' and 'Low Internet speed' are the major problems faced by the respondents. Majority of the respondents said that they cannot say how useful are e-resources of N-LIST programme.

Kavithanjali (2019) studied the importance, types, issues and challenges of e-resources, it is familiar among the various fields of people. In fact, it is now hard to envisage a world without e-resources. The stipulation and use of e-resources is element of the complete system, to both the students, institutions and information professionals. The e-resources assist to deliver the sources to their user very fast, so the user time was saved.

Nowadays e-resources have totally reduced the usage of paper material. These e-resources are convenient to use, reachable at a reasonable cost and can be accessed from anywhere and by many users concurrently, these databases are most advantageous utilize to put in to the academic excellence and achievement of its user community.

Isachenko (2018) examined the role of information communication technologies in modern society, it is necessary to develop a strategy for the further development of the information society and the use of information, communication and computer technologies. She had also offer some measures that would minimize the negative influence of information and computer technology on society.

Ramesh and Rajendra (2018) in their study Why should higher education institutions use the N-LIST? They stated that e-resources are important as well as Printed Materials. Some printed materials are more expensive than e-resources, so they are not afforded to buy and such printed materials are not available in the libraries. In this case, higher education institutions need to use the N-list. Because of the high-quality research material of National-International publications in the N-List, books, journals, databases, etc. are available in the form of e-resources. Professors, students and researchers can conduct high quality research using the e-resources in the N-list, so higher education institutions need to use the N-List. The N-List facility is provided to higher education institutes by paying regular fees.

Kaushal and Chakravarty (2017) evaluate the usage of N-LIST e-resources in the select degree colleges affiliated to Punjab University, Chandigarh. It is inferred that MyLibrary e-books and MathScinet are found to be the most useful amongst the faculty members and students respondents. Whereas 90% of faculty members respondents opined for Royal Society of Chemistry (RSC) as useful for their academic pursuits. 98% of students respondents considered 'Economic and political weekly' as useful for searching the N-LIST e-journals. It can be inferred that there is non-significant difference in the usage of the N-LIST e-resources amongst the faculty members and students respondents. The study helps in identifying the strengths and weaknesses is of the consortium in evaluating the performance of N-LIST e-resources. The measures

needed to be undertaken to make the N-LIST consortium more effective and successful are also mentioned.

Khandare and Sonwane (2017) focused on Library and Information Science E-Journals accessible under N-LIST Consortium. It explains the frequency of LIS e-journals available under N-LIST Consortium, language wise distribution, city/state wise distribution, country wise distribution, Source Publisher and Publisher under N-LIST Consortium of LIS E-Journals and beginning and ending year status of LIS e-journals.

Puttamadappa and Begum (2017) The study was carried out at First Grade Colleges such Science faculty affiliated to University of Mysore. The researchers are using questionnaire tool for data collection. It has found out that majority of faculty used N-LIST e-resources. About 27% of faculty used frequency of Daily. Majority of faculty 22% used Economic and Political weekly N-LIST e-resources. About 34% of Science faculty used Trial and error method for N-LIST e-resources. Majority of faculty 60% most prepared storage medium used downloading N-LIST e-resources. About 61% for assignment use N-LIST e-resources. Majority of faculty 28.15% time saving and 24/7 access and about 25% N-LIST resources satisfied.

Chanchinmawia (2016) highlights that most of the faculty members and research scholars in School of Physical Sciences, Mizoram University were aware with UGC-Infonet Digital Library Consortium. It is very useful for them and it has a lot of positive impact on their academic and research performance. Library orientation was a major source of awareness about UGC-Infonet among research scholars. The preferred place to used consortium is department. 49% respondents feels that this consortium was very useful while 17% feel that it was useful while 34% respondents reported that they cannot say anything about usefulness of UGC-Infonet library consortium.

Nagesh and Naveen (2016) in their study, it was seen that only 40% college libraries are subscribing N-List consortia whereas 60% college libraries are not subscribing N-List. It is found that out of 8 colleges, 7 college libraries are subscribing N-List consortia with the financial source of Reading Room Fund (RR Fund). This fund is collected from the students during their admission for the purpose of journals/magazines and newspaper subscription. Out of 8 colleges, 3 college libraries were subscribing N-

List consortia recommended for the purpose of NAAC Accreditation. Majority colleges were using multiple promotional tools for promoting usage of N-List consortia in the college. Out of 8 colleges, 7 colleges were conducting N-List Orientation program to users to promote the use of N-List consortia. There were various barriers for not subscribing N-List consortia. Some colleges are facing multiple barriers for not subscribing. Out of 12 colleges which were not subscribing N-List, all colleges (100%) were due to insufficient fund. Remaining barriers were inadequate computers, inadequate electricity, lack of ICT knowledge, lack of training and no internet facility.

Narayanaswamy (2016) in his study 'Use and Awareness of N-LIST services by degree colleges in Bangalore,' it had found that 57% of students and faculty members awareness about N-LIST services. 79% of students and faculty members' awareness regarding N-List e-resource service by library professionals. 28% students and faculty members use frequency of once in a week. 46% use Economic and Political Weekly and e-journals in N-List services. 46% use Springer e-books, 47% students use N-List services for assignment purpose and 54% faculty members used for preparing/accessing teaching resources. About 56% of students and 36% of faculty members face problem of overload of information on the internet, in the N-List Services.

Pragasam (2016) on his study Awareness and Use of INFLIBNET's N-LIST Consortium in Colleges, this study has highlighted that a majority of users are aware and use N-List as one of their sources of information. The study also indicates that most users are satisfied with the information available on N-List. N-List is an effective consortium containing quality information. The N-List facility has enabled the faculty members, research scholars and students to excel their academic and research purposes to excel further.

Subbulakshmi and Santhi (2016) conducted a study on the use of electronic resources by research scholars and faculty members of women colleges affiliated to Alagappa University and found that the majority of the respondents are aware of the e-resources on the N-List service and clearly shows that e-resources are mainly accessed through the N-List service. Among the available e-resources in the colleges the majority of the respondents stated that e-resources available through N-List are excellent for their

needs. It can be further seen that the majority use e-resources for keeping updated to their subject knowledge while some are using e-resources for writing papers, articles, books and projects.

Annu, Pillai & Aparna (2015) studied the faculty members of randomly selected arts and science colleges in and around Kottayam, affiliated to the Mahatma Gandhi University. Most of the respondents were aware of N-List and majority of them came to know about N-List from their college librarian. It is found that teachers above the age of 45years access N-List more than teachers of other age groups. Those in science subjects access N-List more. The teachers access N-List for articles, teaching, preparing presentations for projects etc. Though they find N-List very useful, they face certain problems such as slow internet connectivity and lack of infrastructure in colleges and limited resources available in N-List. A few of the respondents have suggested that more resources such as Science Direct may be included in N-List. It is hoped that programme will be accessible to more colleges with a wider coverage in future.

Bamgbade et al., (2015) on their study Comparative analysis and benefits of digital library over traditional library, the paper reviews the relevance of Information Communication Technology (ICT) as related to other professions especially, the Library professions. The importance, advantages and limitations of digital library over the traditional library were emphasized. The comparative analyses of the two types of libraries were also discussed. Governments in all tiers of the Nation and Legislators were advised to make policies and legislate bills respectively that can advance the present state of the National grid and improve on the Internet technology infrastructures which are major factors that can drive digitization.

Anand Y. Kenchakkanavar (2014) on his study states that the collected information through the ages has to be used for further research; betterment and overall development of the society. Electronic resources are easily accessible in remote areas. Electronic resources solve storage problems and control the flood of information. Print sources are being digitized. Electronic information sources are becoming more and more important for the academic community. The advent of technology has made the libraries to add new things to its collection. The more prominent among them is the e-resources. This

paper also presents an overview of these resources, describes a few advantages and disadvantages, and gives addresses of few web sites.

Waghmode (2014) on his study N-LIST Consortia Library consortia in today's digital age are quite different from that of library networks in yester years. The main reason is that the resources that are shared in today's consortia environment are predominantly in electronic form such as electronic journals and databases. Hence the technology and associated tools to support sharing the electronic resources are also important components for the success of any library consortia. N-LIST is the consortia crated by INFLIBNET and supporting agencies for the colleges in India.

Kumar, Rajeshwar G (2013) In International Journal of Librarianship and Administration on the topic 'Awareness and Use of Electronic Resources through N-List : A Boon to Academic Libraries.' The paper briefly described the awareness about N-List project, its components, availability of e-resources through N-List, how to access these resources and outlines the structure and their roles.

Habiba and Chowdhury (2012) on their study use of e-resources and its impact by Dhaka University library users, showed that a large number of e-resources are made available in DUL. This study reveals that, a majority of the users of DUL use e-resources for their learning purpose. It was found that, e-resources materials in DUL are 89. The Eastern Librarian-peer-reviewed journal in LIS since 1965 available and users are generally satisfied with these materials. Although DUL lacks of infrastructure facilities, the existing e-resources can fulfill user needs.

Thanuskodi (2012) A large portion of faculty members in the state universities areaware about the UGC-Infonet Digital Library Consortium, but they do not know all its techniques and applications. Further, a few faculty members have no knowledge about the UGC-Infonet Digital Library Consortium and related applications. For this purpose, there is need for effective user education, to develop awareness and knowledge of the UGC-Infonet Digital Library Consortium. Further, there is need to include more number of Journals in the Consortium. Users also expected other kinds of Services along with the UGC Infonet Service. Majority of the users rated the Consortium services

are good. But it is needed to improve the internet facility.

Chandra (2011) in "N-LIST : e-journal consortium for college libraries," stated that the N-LIST projects is mainly designed for the students, teachers of the undergraduate level of education. But the emphasis is on science discipline. The language and social science subjects are not so far included in the journal section. It may be not so far when every subjects of the undergraduate level will be represented equally in this consortium. Another thing of concern is a common search platform for all the journals and books included in the N-LIST.

Gordon (2009) highlight the reflections on technology and the future of public and academic libraries. It had mentioned the importance and usefulness of Library 2.0. The book contents is divided into 3 parts. There are lots of information day by day, it had also written how to manage and disseminate the information generated.

Koelen and Ballard (2009) describes the role of a digital library in a joint educational Master of Science (MSc.) programme involving organizations in Ghana and the Netherlands. A brief introduction of the International Institute for Geo-Information Science and Earth Observation (ITC) and Kwame Nkrumah University of Science and Technology (KNUST) is followed by an outline of the joint educational MSc. programme developed by these two institutions. The digital library support provided in this joint programme is described, and observations resulting from experiences delivering the programme are summarized. The article also provides general comments on the importance of libraries in building digital partnerships between organizations in developed and less technologically advanced countries.

Hawthorne (2008) describes the history of the development and use of electronic resources in libraries in the United States. It provides an overview of the major developments in the field with a focus on library catalogues, electronic databases, e-books and e-serials. The chapter is intended to convey the broad sweep of change that has characterized these electronic resources from the 1960's to the early 2000's, as well as a sense of the underlying issues that remain the same. The author hopes that an understanding of the history of the development and use of these resources may lead to a

better understanding of the current environment and provide inspiration for the future.

Ritowski (2008) on the study Digital Libraries and Digitisation : an overview and critique, this article provides an overview of some of the main areas surrounding the broad topic of 'Digital Libraries.' It includes the advantages and costs of digitisation; the traditional and digital library; the library community and digitisation; and an examination of various digital library projects. Many different issues in regard to digital libraries have been discussed in this article. The article concludes with a critique within a social and political angle,it includes a consideration of the gender issue. Digitisation/ digital libraries offer many new and upgraded ways for us to be able to access material, but users also need to exercise some caution, and not just jump on every digital bandwagon.

Ganguly (2007) states that libraries are expanding the amount and variety of high quality information resources that are directly available to academic and research users via the web. In the early days, libraries are characterized as private libraries. Later, it can be characterized as public libraries. Due to the rapid growth of technology, libraries are also growing and developed in many ways. The author had also mentioned the duty and importance of librarians, and the future of digital libraries.

1.4   Research Design

1.4.1   Statement of the Problem

The N-LIST resources provided by INFLIBNET centre mainly cover colleges and all the 8 out of 9 colleges on the study are the members of N-LIST. Therefore it is important to know the types, varieties and subject wise e-resources provided by N-LIST for the academic development of faculty members. It is important to know the extent of use by the faculty members of the selected colleges and others technical and technological problems confronted by the faculty members for its easy access. The study helps the college authorities in Mizoram and INFLIBNET authorities to make it more effective and efficient. All these reasons prompted and motivated me to take up this research problem.

1.4.2   Objectives of the Study

The objectives of the study are to :

1. Identify the variety of e-resources provided through N-LIST.

2. Study the benefits of these e-resources for college teachers in Aizawl city for teaching, learning and research.

3. Suggest the ways and means of optimum use these e-resources and problems confronted with access.

1.5   Research Methodology

1.5.1   Data Collection, Analysis and Interpretation

The study is designed to determine the use of N-LIST e-resources by the faculty members of colleges in Aizawl city. The study applied a qualitative method which is descriptive in nature adopting random sampling technique to gather data through questionnaire which is circulated to 10 faculty members of each 8 colleges located in Aizawl city. The questions were designed in such a way that the answers can be given by selecting one of the possible answers provided in the questionnaire and some questions by checking yes or no. Analysis and interpretation of data is the most important part of research as it leads to the findings of a research work. The data obtained from the questionnaire analysed by using a suitable statistical tool which will be supported by tables and graphs to represent the data.

1.6   Chapterization

 The present study comprises the following chapters :

Chapter 1 describes a brief introduction with the meaning of e-resources including the scope and significance of the study, review of literature, research design consisting of the statement of the problem, objectives of the study followed by the research methodology and data collection, analysis and interpretation.

Chapter - 2 entitled College and their library scenario in Mizoram and each of the

college history and about the faculty members and Library.

Chapter - 3 of the study consists of the definitions and different types of e-resources. It also consists the meaning of N-LIST and its e-resources for colleges, the benefits of these e-resources for college teachers in Aizawl city for teaching, learning and research.

Chapter - 4 of the study deals with the data analysis and findings.

Chapter - 5 of the study contains suggestions and conclusion.

All the above chapters are followed by a bibliography based on the 6th edition A.P.A style manual.

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CHAPTER - 2

COLLEGE AND THEIR LIBRARY SCENARIO IN MIZORAM

2.1 Introduction

In Mizoram, there are two Universities and 28 colleges which cater the educational and research needs of the potential students and researchers. For enhancing the educational and research capability of the Universities and Colleges teachers, students and research scholars there are libraries attached to these institutions. In the changing information scenario, the colleges have started accessing and procuring e-resources by the faculty to promote their teaching, learning and research. It is in this context, it is important to know the colleges located in Aizawl City.

2.2 The Colleges in Mizoram

Presently, Mizoram is having one Central University i.e. Mizoram University and one private University, ICFAI (Institute of Chartered Financial Analysts of India) University. There are 28 colleges in Mizoram as stated on the table along with the establishment year of each college.

Table 2.1 Colleges in Mizoram

Sl.No	Name of College	Established Year
1	Govt. Aizawl College	1975
2	Govt. Aizawl North College	1988
3	Govt. Champhai College	1971
4	Govt. Kamalanagar College	1992
5	Govt. Khawzawl College	1985
6	Govt. Saiha College	1978
7	Govt. Zawlnuam College	1986
8	Govt. Aizawl West College	1990
9	Govt. Hrangbana College	1980
10	Govt. T. Romana College	1992
11	Higher and Technical Institute Mizoram (HATIM)	2007
12	Govt. Hnahthial College	1979

13	Institute of Advanced Study in Education	1975
14	Govt. J. Buana College	1983
15	Govt. J. Thankima College	1992
16	Govt. Johnson College	1993
17	Govt. Kolasib College	1979
18	Govt. Lawngtlai College	1980
19	Govt. Lunglei College	1964
20	Govt. Mamit College	1983
21	Govt. Mizoram Law College	1983
22	Mizoram College of Nursing	1980
23	Pachhunga University College	1958
24	Regional Institute of Paramedical and Nursing Science (RIPANS)	1994-1995
25	Govt. Saitual College	1984
26	Govt. Serchhip College	1973
27	Govt. Zirtiri Residential Science College	1980
28	NIELIT Centre, Aizawl	2001

(Source : MZU annual report 2018-2019)

2.3   The Colleges in Aizawl City

There are 9 colleges situated within the boundary of Aizawl city such as :-

Table 2.2 Colleges in Aizawl City

Sl. No	Name of the College
1	Pachhunga University College
2	Govt. Aizawl College
3	Govt. Hrangbana College
4	Govt. Aizawl West College
5	Govt. Aizawl North College
6	Govt. T. Romana College
7	Govt. Zirtiri Residential Science College

8	Govt. J Thankima College
9	Govt. Johnson College

2.3.1 Pachhunga University College

2.3.1.1 About the College

Pachhunga University College was established on 15th August 1958 as 'Aijal College' and it was the first institution of higher education in Mizoram and was founded and managed by a group of Mizo elders among which Mr. Pachhunga. He was the major benefactor, and after his demise the college was renamed Pachhunga Memorial College.

It is the Constituent College of Mizoram University. The college is accredited 'A' Grade by NAAC in 2019. The college caters Undergraduate degree course in Arts, Science and Commerce. In 1965, the college was provincialized by the Assam Government and the college became Pachhunga Memorial Government College (PMG). The college was renamed Pachhunga College in 1977. On April 19, 1979 the North Eastern Hill University (NEHU) adopted and upgraded it as its only constituent college to become a pace-setting institution. The college eventually received its fourth name Pachhunga University College (PUC). With the establishment of Mizoram University, the entire management was handed over to the new university on July, 2001. The college caters undergraduate courses in 21 subject areas of Arts, Science and Commerce streams. The academic programme include, apart from effective class room teaching, internal semester test for semester system students (introduced in 2011-12 academic session) two terminal exams, periodic class tests, seminars, assignments, remedial courses, field studies etc. The college also promotes students exposure through study tours and excursion inside and outside the state. The college is also the leader among all college in terms of research activities and publications and is also selected under 'Star college scheme' by the Department of Biotechnology in 2012.

Under the Arts stream there are a number of departments which are Economics, Education, English, Geography, History, Mizo, Philosophy, Political Science, Psychology, Public Administration, and Sociology. Several departments are under the Science stream which is Biotechnology, Botany, Chemistry, Environmental Science,

Geology, Mathematics, Physics, Statistics and Zoology. And the Bachelor of Commerce is under the Commerce stream. The college is currently a member of N-LIST.

https://pucollege.edu.in/page/about-the-college

Table.2.3 Number of faculty in Pachhunga University College

Name of the College	Total number of faculty
Pachhunga University College	100

(Source : MZU Annual Report 2018-2019)

2.3.1.2   About the Library

Pachhunga University College Library was started in the same year of establishment with Mr. Lalmakthanga as the Librarian cum Clerk. The first separate library building was set up in 1960 with a mere two cupboards of books which soon grew to be one of the best college libraries in the whole North-East Region. It was known for its collection which consists of rare books and a good reference section.

Unfortunately in 1981 due to insurgency of the locals the library which was built up for more than 20years with a collection of 25000 books was burnt down to ashes. in 1984-1985, the College Library then took its rebirth, since then the collection of books have been growing rapidly along with its staff and building. Due to natural calamity and also with the need for extension, the library building was dismantled in 2010 and is rebuilt with a well-planned architecture which is now occupied and is functioning in full swing since 12th July, 2013.

The new library is now equipped with new furniture. It has become the centre of attraction for the students as well as teachers and it hopes to move forward in building a modern library which is well equipped, user friendly and resourceful such that researchers of different university can get maximum benefit from it. https://pucollege.edu.in/page/about-library

2.3.2   Government Aizawl College

2.3.2.1   About the College

The college was established as "Aizawl College" in 1975 by a team of philanthropic citizens meeting at the Office chamber of the then Legislative Assembly Speaker, Dr. H. Thansanga, on 13thJanuary 1975. The college was later renamed to "Government

Aizawl College" following its take-over by the State Government and was inaugurated by the first Chief Minister of Mizoram, Mr.CH. Chhunga. In the year 1975, 350 students started attending evening classes of Pre-University Class with six Lecturers. It was upgraded to Deficit Grant-in-aid status with effect from 1st November, 1984 and became Government on 1st January 1989. The College was included under section 2(f) of the UGC Act 1956(3) and section 12(B) of the UGC Act 1956 with effect from 17.3.1987. While affiliated to the NEHU, the college was one of the prominent members of the NEHU family.

The college has two streams which are Arts and Commerce with eight different disciplines in Arts stream offering both general and honours and is now affiliated to Mizoram University and is currently a member of N-LIST.

https://www.gac.ac.in

Table.2.4 Number of faculty in Government Aizawl College

Name of the College	Total number of faculty
Government Aizawl College	55

(*Source : MZU Annual Report 2018-2019*)

2.3.2.2   About the Library

The College Library has a several books in its collection and it has reading room with a seating capacity of 20-30 people and has computers which are using SOUL 2.0. DDC 23rd edition is currently used for classification of the library materials. Reprography services has also offered and there are currently one Librarian and two library attendants.

2.3.3   Government Hrangbana College

2.3.3.1   About the College

Government Hrangbana College was named after the late Mr. Hrangbana, a

philanthropist and a businessman and he donated a sum of Rs.1 Lakh for starting the college. The college was given government recognition on 6th November 1980 as a private college and was later upgraded to Deficit Grant-in-Aid status on 1st September 1985. It became a Government college on 1st April 2003 and was affiliated to NEHU until 2002 and was one of the prominent members of the NEHU family. It is currently a member of N-LIST.

The college offers two streams i.e., Bachelor of Commerce and Bachelor of Arts. Both General and Honours and was accredited "B++" in 2006 and later re-accredited to "A" in 2011 by the National Assessment and Accreditation Council (NAAC), Bangalore.

https://ghbc.edu.in/page/history

Table.2.5 Number of faculty in Government Hrangbana College

Name of the College	Total number of faculty
Government Hrangbana College	71

(*Source : MZU Annual Report 2018-2019)*

2.3.3.2   About the Library

The library has a separate room in the college building. The seating capacity of the library is 70. The library has various collections of audio and video cassettes, CD's, Indian Journals and Foreign Journals which can be accessed through N-LIST. In 2005 the college library became fully automated by using SOUL 2.0 and in 2017 RFID technology was implemented in the library.

2.3.4   Government Aizawl West College

2.3.4.1   About the College

The Aizawl West College was founded on 2nd May, 1990 with 7 teachers and 150 students with the primary objective of imparting college education in the evening hours for deserving students especially to the students who could not afford education in Day College. In 1989, the Government upgraded Aizawl College to the status of Government Aided College. It became a Day College and hence the need of another evening college.

While there were colleges in the eastern, southern and northern part of Aizawl city, there was not a single college in the western part of Aizawl city, considering the need of the students pursuing their higher education, a new college was opened in the western part with land donated by the residents of the locality of Dawrpui Vengthar, Aizawl. On 9th March 1992, the college was first affiliated to the North-Eastern Hill University (NEHU) for pre-university (Arts), and Degree (Arts) on 9th June 1994. When Mizoram University was established in 2nd July 2002, the affiliation was transferred to the new university. The college currently has eight departments including department of English, Mizo, Public Administration, Psychology, History, Education, Political Science and Economics. It is currently a member of N-LIST.

https://gawc.mizoram.gov.in/page/history

Table.2.6 Number of faculty in Government Aizawl West College

Name of the College	Total number of faculty
Government Aizawl West College	36

(*Source : MZU Annual Report 2018-2019)*

2.3.4.2 About the Library

The college Library was first named as 'State Government College Library.' The library provides an good atmosphere for reading. The College library maintains the Readers Section with a seating capacity of about 40 readers at a time and a Periodical Section which holds the journals, magazines and newspapers. The College library also maintains magazines, back volume journals, newspapers, question papers in bound forms. The

library is currently using SOUL 2.0 as the library automation system. A Documentation Section has been maintained in which important documents of the College like University Exam Results, College achievements, records of students union and other bodies are kept. Other documents like Right to Information Act (RTI), Statistical handbook, important government gazette notifications, census records etc. are also kept. 19th Edition of Dewey Decimal Classification Scheme has been used for classifying books. Books are kept according to subject, each in a separate shelf in an open access system. To enrich and develop the library, A Library Committee was formed. The

Committee takes the responsibility of overseeing the requirement of the library as well as providing support to the librarian in implementing the rules. The library committee also performs other functions such as, providing suitable library furniture and equipment, laying down sound library rules, making provision for adequate services. It also made provision for suitable funds for procurement of documents, purchase of equipment, maintenance of building etc. The library committee holds regular monthly meeting.

https://gawc.mizoram.gov.in/page/library

2.3.5   Government Aizawl North College

2.3.5.1   About the College

Under the management of the Higher & Technical Education Department, Government of Mizoram was established Aizawl North College in the year 1988 and is permanently affiliated to Mizoram University and got Government Recognition up to Pre University level in 1988 and Degree level in 1990. The College is located at one of the choicest spots of Aizawl city. It is a co-educational higher institution of learning designed for the training of youth in preparation for life and service. The motto of the College is Development through Education. The purpose of the College is to provide education and academic atmosphere conductive for the youths to grow in the knowledge of true learning. It stresses academic proficiency and endeavors towards the attainment of high moral and intellectual stability. It seeks to promote cosmopolitan outlook and attitude

that are needed for integration, both for the nation and individual. The College was established to give higher education to all the youths passing higher secondary schools without any discrimination.

On 4th October 1989, the College received University (NEHU) Provisional Affiliation up to Pre University (Arts) level and Degree level on 17th February 1993. The College received permanent affiliation on 1st July 2006. The College received UGC Recognition under 2(f) and 12(b) on 27th September 2007and was accredited B+ by NAAC in 2009 and is currently a member of N-LIST.

(https://ganc.mizoram.gov.in/)

Table.2.7 Number of faculty in Government Aizawl North College

Name of the College	Total number of faculty
Government Aizawl North College	27

(*Source : MZU Annual Report 2018-2019)*

2.3.5.2   About the Library

Government Aizawl North College Library is the main resource of information and knowledge for the students and teachers of the college. The college currently has a collection of 11,500 books and has a reading room capacity of about 40 people. The library is currently using SOUL 2.0 for automation and is using Barcode Technology for circulation work and annual stock verification.

https://ganc.mizoram.gov.in/page/non-teaching-staff.html

2.3.6   Government T. Romana College

2.3.6.1   About the College

Govt. T. Romana College was established in 1992 as a private institution, upgraded to grant-in-aid (deficit) status in 2003 and provincialised in 2008. With Mr. Remkunga as the first Principal, the College got the government permission to start the Pre University Course in 1993. In 1995, under Dr. J.V. Hluna as the Principal the college got

permission for Degree Courses in six subjects. More subjects Public Administration and Sociology were introduced later in 1997.

The College is committed to the education of the individual giving special care to accommodate academically and economically disadvantaged students. Students are encouraged to seek knowledge and wisdom as lifelong learners, motivated to expand their human potential and develop competencies necessary to function in contemporary society. The College, therefore, has the distinction of being called 'the College of Grace' within which it has produced many meritorious students. The College is an approved study centre of the Indira Gandhi National Open University (IGNOU) under the Convergence Scheme for Open and Distance Learning and Conventional Systems, under which the students can pursue their Bachelor's Degree in subjects like Social Work, Human Rights and others.

Career Oriented Course Programme introduced by the University Grants Commission (UGC) has enabled the College to offer Certificate Courses in Computer Application and Mobile Phone Repairing. The Courses are designed to ensure that graduates who pass out after completing their conventional degree courses would have knowledge, skills and aptitude for gainful employment in the wage sector in general and self-employment in particular.

The college was granted affiliation by North Eastern Hill University (NEHU) in 1995,. The college is now affiliated to the Mizoram University. The college came under grant-in-aid scheme from 2002. The College was accredited C++ by the National Assessment and Accreditation Council (NAAC) in the year 2007 and in the same year it was granted permanent affiliation by the Mizoram University and recognized by UGC under 2(f) & 12(B) provisions of UGC Act and is currently a member of N-LIST.

http://trcollege.edu.in/about-us/about-gtrc

Table.2.8 Number of faculty in Government T. Romana College

Name of the College	Total number of faculty
Government T. Romana College	28

(*Source : MZU Annual Report 2018-2019)*

2.3.6.2   About the Library

The College Library is easily accessible as it is located in the College building itself. It remains open from 9:00 Am to 5:00 Pm on all working days round the year except on holidays. The Library has a large collection including Books, Periodicals, Journals, References and other relevant materials. It also offers an ideal reading room for both the students and the faculty members. Only the staff and students of the College have access to the Library facilities. With special permission from the Principal, exceptions are made for outsiders.

http://trcollege.edu.in/about-us/about-gtrc

2.3.7   Government Zirtiri Residential Science College

2.3.7.1   About the College

The college is currently located in the heart of Aizawl, the capital city on temporary buildings with inadequate space for Classrooms, Computer laboratories, Auditorium, Science laboratories and Library. The college offers education in the subjects of English, Physics, Chemistry, Mathematics, Botany, Zoology, Biochemistry, Electronics, Home Science, Computer Science and Geology. The college possesses the unique position of being the first and only science college in the State of Mizoram, NE India. It was established by an act of the State Assembly in 2000 with the primary vision of providing science education. The defined goal of the college is to ensure quality education for empowering the native people - who are educationally backward in science education by enhancing the status of science and technology. The college is now proudly marching towards its second decade of existence. The College is affiliated to Mizoram University and offers 10 UG course, besides 1 certificate course as a value-added course. It is registered under 2(f) & 12-B of UGC Act under the nomenclature Govt. Zirtiri Women's College' in 1989, which was later renamed to its present form in 2000. Home Science, Biochemistry and Electronics are courses available in the college which are not offered anywhere else in the State. It is also the first college in Mizoram to start BCA programme.

The College was accredited with Grade B by NAAC in 2009 and is currently a member of N-LIST.

http://www.gzrsc.edu.in/index.php/about-us

Table.2.9 Number of faculty in Government Zirtiri Residential Science College

Name of the College	Total number of faculty
Government. Zirtiri Residential Science College	59

(*Source : MZU Annual Report 2018-2019*)

2.3.7.2   About the Library

The college library has a large volume of collections of science related reading materials and is classified according to the DDC scheme. In the year 2000, the library was partially automated. The library has a reading room with a seating capacity of 30 people. For circulation and stock verification Barcode Technology is implemented. The library subscribes to a number of e-journals, e-documents and other sources of information that are useful for the users of the library. The library is a member of LIS information network and connected by Internet for sharing information and resources among other college library in Aizawl City.

https://gzrsc.edu.in/index.php/87-library

2.3.8   Government J. Thankima College

2.3.8.1   About The College

Government J. Thankima College was established in 1992 by the residents of Bawngkawn, Aizawl and the people within the vicinity of the locality to meet the growing demand for quality education and learning. The initial campus was a generous endowment by a philanthropic businessman Mr. J. Thankima and the financial needs were met by contributions from the locality. Through the Policy of Rationalisation and Standardisation of Higher Education in Mizoram adopted by the state government, two private colleges, namely, J. Thankima College and Lalhmingthanga College were

amalgamated and upgraded to the status of a deficit college on November 11, 2002, and given the name 'J. Thankima College.' The College was subsequently upgraded to a provincialised status by the Government of Mizoram in the year 2007. Consequent upon the upgradation to a provincialised status, the College was named "Government J. Thankima College." The College is privileged with a permission to offer a six semester Under Graduate Arts course and is affiliated to Mizoram University in 2007. It was accredited by NAAC, Bangalore in 2007 with a 'C++' grade and in the 2nd Cycle Assessment and Accreditation it was awarded C grade. On 18th February, 2008 it is registered under section 2(f) and 12(B) of the UGC Act. The College has Central Campus at Brigade Area of Bawngkawn, South Campus at Bawngkawn and North Campus at Durtlang Mel 5. The College administration was shifted to the Central Campus on 26th January 2017 which housed the Administrative Building, classrooms and other buildings and offices. The College has five units of National Service Scheme units and a Red Ribbon Club which have made commendable contributions to the society by performing various extension services. Student Clubs such as Divination Youth Adventure Club, History Club, Cultural Club, etc., and the Students Evangelical Union have provided venues for the students to enhance their talents, creativity, and skills while enriching their personality.

https://jtc.edu.in/college-profile/

Table 2.10 Number of faculty in Government J. Thankima College

Name of the College	Total number of faculty
Government. J. Thankima College	24

(*Source : MZU Annual Report 2018-2019)*

2.3.8.2   About the Library

The College Library was established since its inception of the college in the year 1992. The functions of the College Library lay in providing materials to the college community adequate for their various needs purposes. Making materials easily accessible physically through open shelves, orientation etc. By encouraging wide reading through easy accessibility of materials, reader's guidance and display. By

enlisting the co-operation of the faculty in making the library a study centre. Another major service rendered by the college library is that to the alumni. The college library currently has 7200 print documents and receives e-journals from INFLIBNET. The college has a reading room with a capacity of 20 people and is currently under the guidance of one Librarian. The college is open on all working days from 9:00 AM to 5:00 PM.

https://jtc.edu.in/library/

2.3.9   Government Johnson College

2.3.9.1   About the College

Government Johnson College was established on 27th July 1993 by the community leaders of Khatla, Aizawl and was named 'Khatla Arts and Commerce College.' The college was named after Mr. PP. John, an education-minded and a prominent resident of Khatla who donated a sum of rs.12 Lakhs. The college was later renamed to Johnson College. There are 6 departments currently active which are the Department of Mizo, of English, History, Education, Political Science and Economics. It received provincial affiliation to NEHU on 17th Decemeber, 1996. The college was provincialised by the Government of Mizoram on October 11th 2007. The college was granted university affiliation upto degree level on December 17th 1996 and received permanent affiliation on July 1st 2006. The college has been granted UGC recognition under 2(f) & 12(B) on 17th November 2006 and is not a member of N-LIST.

https://johnsoncollege.mizoram.gov.in/page/profile.html

Table 2.11 Number of faculty in Government Johnson College

Name of the College	Total number of faculty
Govt. Johnson College	28

(*Source : MZU Annual Report 2018-2019)*

2.3.9.2   About the Library

Government Johnson College Library was established in the year 1993 under the state government. The library has been automated by the use of SOUL 2.0 on 2013 along with the circulation system and the library offers CAS, SDI and Reprography Services. The library has a separate building with the seating capacity of 30 - 40 people and is open in all working hours.

https://johnsoncollege.mizoram.gov.in/page/library.html

The following chapter deals with the various e-resources being used by the faculty members of colleges located in Aizawl City for their teaching, learning and research.

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CHAPTER - 3

USE OF N-LIST RESOURCES BY THE COLLEGE FACULTY MEMBERS OF AIZAWL CITY

3.1   Meaning and Definitions of E-Resources

E-Resource can be defined as a source which need computer access or any electronic item for the distribute a compilation of information, be it manuscript referring to complete book bases, e-periodical depiction, other multimedia products and arithmetical, graphical or time based.

According to Sukula, "An e-resources is an electronic information resources that can be accessed on the web, on or off campus. User can get the information what he or she want, when it is needed."

AACR2, 2005 defines E-Resources as, "Material (data and/or programs) encodes for manipulation by a computerized device. This material may require the use of peripheral directly connected to a computerized device (eg., CD-ROM drive) or a connection to a computer network i.e the Internet."

3.2   Types of E-Resources

Information have been embedded in variety of types:-

3.2.1   E-Book : E books are books which are in electronic forms. It can be used via internet browser, a computer or other electronic device. It can be downloaded to laptop, computer and tablet. E-books are available on subscription by some publisher or by some institutions. Some e-books may available at free or at low cost, however, prices.

Example : www.bookbunker.biz

www.blackmask.com

www.digitalbookindex.com

3.2.2   E-Journals : E-Journals are also in electronic form or it may be defined as any serials produced, published and distributed nationally and internationally via electronic networks. An e-journal is published and distributed all over the world by

electronic network. An electronic journal is a periodical publication which is print inelectronic format, usually on the Internet. The user can search either full text or content pages of journals to find articles on a particular subject, the user need not to visit library to read the journal, they can read it in their desktop itself, the user can download the article in their computer and can get print out whenever they need. The journal is always available, it does not only includes texts, it also includes audio – visual material the readers can send comments to the authors or publishers about the article.

3.2.3 **E-Magazine (E-Zines) :** E-Zines deals with product advertisement, educational, cultural, political and some social issues. It has attractive quality of pictures and graphs than other resources. E-Zines are the online magazines disseminated through World Wide Web. This kind of articles is stored in server and it will be accessed through computer network. Through bulletin board systems or other public network may publish this online magazine via internet. The user can get the magazines through online at any time, at any where, they can also download and the main advantage is that the user can give comment to the authors for the particular article.

Example :   www.indiatoday.com

www.musicindia.com

3.2.4 **Full-text Databases :** Full-text database is compilation of document or other information in form of database in which the complete text of each referenced document is available for online viewing printing or downloading.

3.2.5 **Indexing and Abstracting Database :** These databases provides bibliographic information about journals including abstracts of the articles used for the reference work. These resources can be used to find references sources and research and some other work. These resources are useful for data mining.

3.2.6 **Reference Databases :** The databases mostly used for reference which are available both online and offline.

3.2.7 **Statistical Database :** These databases contains numerical databases useful for business and study.

3.2.8   ETD : An ETD is an electronic document that gives details about the thesis and dissertations which was done by the scholars, it was stored in digital format and the researchers can find the thesis and dissertation whenever they need, it was formed in the coherent works or research of a researcher. ETD is affords a scientifically sophisticated standard for articulate thoughts with a lesser amount of expensive, tiny space, simple handling, elevated durability.

Example : http://scholar.lib.vt.edu/theses

    www.more.edu.sg

3.2.9   E-Newspaper : An electronic newspaper is a self-reliant, reusable, and refreshable edition of a conventional newspaper that obtains and holds information electronically. The e-newspaper is refreshed everyday by the concern editorial boards, it may be video, audio and text news. The e-newspaper is alternative of normal printed papers, through this e-newspaper user can receive the instant news at any time, it is available in all languages, the user can also get previous newspapers from the internet by date wise, so the readers need not to wait for the newspapers, it is available in the internet at any time.

   Example : www.indiatoday.in

      www.usatoday.com

3.2.10   CD-ROM's : CD- ROM's is a compact disk- read only memory, it is one of the sequence of devices. It is used to store huge amount of pre-arranged data, bibliographic information, full text information and images etc.

3.2.11   Citation Database : A Citation Database contains a list of cited articles, each one followed by the citing articles. They are indexed in a way so that a user can search for specific articles by subject, author, journal and author address. ISI Citation Database are multidisciplinary databases of bibliographic information gathered from thousands of scholarly journals.

3.2.12   Image Collection : A database which stores electronic images and categorises the images on different sections for convenience of the users.

3.2.13   Multimedia products : These databases stores different kinds of multimedia electronic resources such as images, videos, audios and text.

3.2.14   E-Patent : E-patent is the exclusive right granted by the government to make use or sell an invention in a certain country for a specific period of time.

3.2.15   Electronic Preprints : The research articles that are made available for distribution through the network in electronic format before they go through the process of peer reviewing are known as Electronic Preprints.

3.2.16   E-Prints : E-Prints are used to describe electronic copies of the final peer-reviewed versions of journal articles. The use of e-print is to provide access to collections of preprints. It comprises of scholarly communication developed in physical sciences to bypass the delays and high cost of commercial publishing.

3.2.17   Library Catalogues : Librarians started putting their contents on the web and started to build Meta resources for their home pages and also web-enabled their library catalogues. Most standard library software packages have web interfaces to their catalogues.

3.3   N-LIST : AN OVERVIEW

The National Mission on Education through Information Communication Technology (NMEICT) was launched on 3rd February 2009. It initiated a project called "National Library and Information Services Infrastructure for Scholarly Content," popularly known as N-LIST which was formally launched by Shri. Kapil Sibbal, the then Union Minister for Human Resource Development on 4th May 2010. From the year 2014, N-LIST programme is included under UGC-Infonet Digital Library Consortium as the college component.

With the emergence of technology, demand for e-resources growing day by day, Advanced ICT infrastructure also encourage users to use e-resources in a wide range. Each user now accessing e-resources over the web. N-LIST e-resource is a programme where selected collection of e-journals and e-books provided to the colleges after registration. It facilitates access to e-resources to students, researchers and faculty, from college through proxy servers. N-LIST provides scholarly contents in electronic form at a lower price.

The Project entitled "National Library and Information Services Infrastructure for Scholarly Content (NLIST)", being jointly executed by the UGC-INFONET Digital

Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi provides for :-

i)   Cross-subscription to e-resources subscribed by the two Consortia, i.e. subscription to INDEST-AICTE resources for universities and UGC-INFONET resources for technical institutions; and

ii)   Access to selected e-resources to colleges.

The N-LIST project provides access to e-resources to students, researchers and faculty from colleges and other beneficiary institutions through servers installed at the INFLIBNET Centre. The authorized users from colleges can now access e-resources and download articles required by them directly from the publisher's website once they are duly authenticated as authorized users through servers deployed at the INFLIBNET Centre. This is meant for extending e-resources/ e-content to college libraries across India. N-LIST gives full text access to scholarly publications to its end users. Further subscribing to printed costly journals in different disciplines by individual college libraries has become neither possible nor feasible. Ever-increasing prices of journals accompanied with the shrinking budget of libraries, the college authority/parent bodies are forced to resort to the best alternatives. In order to achieve best performance in service, enable flexibility of access, and also to meet the requirements arising out of convergence of technologies, regular technological inputs are necessary to upgrade the network infrastructure and to ensure delivery of upcoming applications and content to the education. The UGC and INFLIBNET have joined hands with ISP's to meet these challenges. The N-LIST provides Internet bandwidth, a pre-requisite for delivery of scholarly content subscribed through the N-LIST Digital Library Consortium www.inflibnet.ac.in.

The faculty members and the students from the colleges covered under section 12B/2F of UGC Act are eligible to access e-resources through the N-LIST project. These colleges are required to register themselves on the N-LIST website. During the last years, the collection has increased from 2100 to 6000 e-journals and from 51000 to 100000 e-books subscribed under the N-LIST project. All electronic resources subscribed under N-LIST Programme are available from the publisher's website.

The Consortium subscribes to the following resources for the colleges. The links of N-LIST are as followed :-

Table 3.1 E-Journals

American Institute of Physics (18 titles)	http://journals.aip.org/
Annual Reviews (33 titles)	http://arjournals.annualreviews.org/
Economic and Political Weekly (EPW) (1 title)	http://www.epw.in/
Indian Journals (180+ titles)	http://www.indianjournals.com/
Institute of Physics (46 titles)	http://topscience.iop.org/
JSTOR (2500+ titles)	http://www.jstor.org/
Oxford University Press (262 titles)	http://academic,oup.com/journals/
Royal Society of Chemistry (29 titles)	http://pubs.rsc.org/en/journals
H. W. Wilson(3000+ titles)	http://search.ebscohost.com
Cambridge University Press (224 titles) (2010-2016)	http://www.cambridge.org/core

Table 3.2 E-Books

Cambridge Books Online(1800 titles)	http://www.cambridge.org/core
E-brary (185000+ titles)	http://ebookcentral.proquest.com/lib/inflibnet-ebooks
EBSCoHost-Net Library (936 titles)	http://search.ebscohost.com
Hindustan Book Agency (65+ titles)	http://portal.igpublish.com/iglibrary/
Institute of South East Asian Studies(ISEAS) Books (382+ titles)	http://portal.igpublish.com/iglibrary/
Oxford Scholarship (1402+ titles)	http://www.oxfordscholarship.com/
Springer eBooks (2300 titles)	http://link.springer.com
Sage Publication eBooks (1000 titles)	http://knowledge.sagepub.com
Taylor Francis eBooks (1800 titles)	https://www.taylorfrancis.com/http://ebookcentral.proquest.com
Myilibrary-McGraw Hill (1124 titles)	http://ebookcentral.proquest.com/lib/inflibnet-ebooks
South Asia Archive (through NDL)	http://www.southasiaarchive.com
World e-Books Library (Now Available through NDL only)	http://ndl.iitkgp.ac.in/

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CHAPTER - 4

DATA ANALYSIS AND FINDINGS

4.1   Data Analysis and Findings

The purpose of the present study is to find the use of N-LIST e-resources by the faculty members of colleges in Aizawl city. A total of 80 questionnaires were distributed among the faculties of 8 (eight) colleges in Aizawl city in which 69 questionnaires were answered. After collecting the data from the respondents, the said data was analysed and presented.

4.2   Analysis by Response from Faculty Members

The following table shows the number of questionnaire circulated in each college with the total number of respondents.

Table 4.1 Response from faculty members

Sl. No	Name of the College	Questionnaire circulated	Response
1	Pachhunga University College	10	10
2	Govt. Aizawl West College	10	7
3	Govt. Aizawl College	10	10
4	Govt. Hrangbana College	10	10
5	Govt. T. Romana College	10	9
6	Govt. Zirtiri Residential Science College	10	7
7	Govt. J. Thankima College	10	8
8	Govt. Aizawl North College	10	8
	Total	80	69

(*Source* : Survey Data)

The above table is further represented with the help of Fig 4.1 as shown below
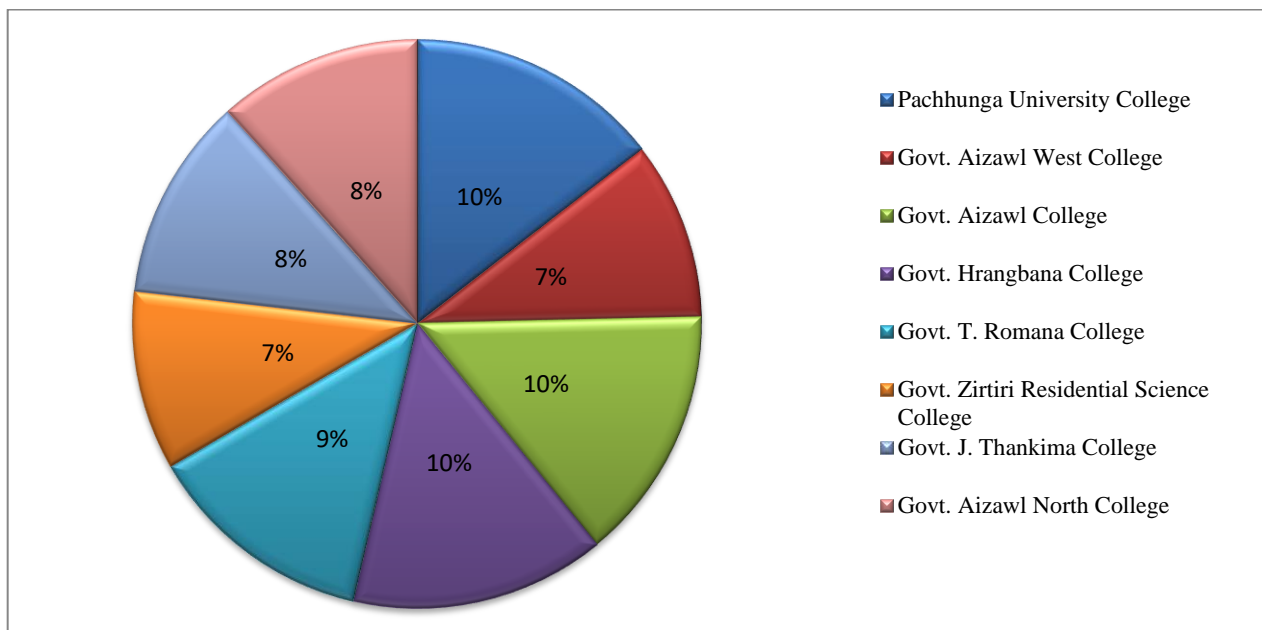
Fig 4.1 Response from faculty members

From the above table we can clearly see the total response rate of the faculty. The figure clearly shows the percentage of respondents from each college.

4.3 Frequency of Library Visit

The following table shows the frequency of visit the library by the faculty members from colleges in Aizawl city.

Table 4.2 Frequency of Library Visit

Sl. No.	Frequency of visit	Response	Percentage
1	Everyday	3	4.34%
2	Twice a week	16	23.18%
3	wo/three times in a month	46	66.66%
4	Not at all	4	5.79%

(*Source* : Survey Data)

The table showing the frequency of visit the library by the faculty from the colleges in Aizawl city is further represented in Fig 4.2
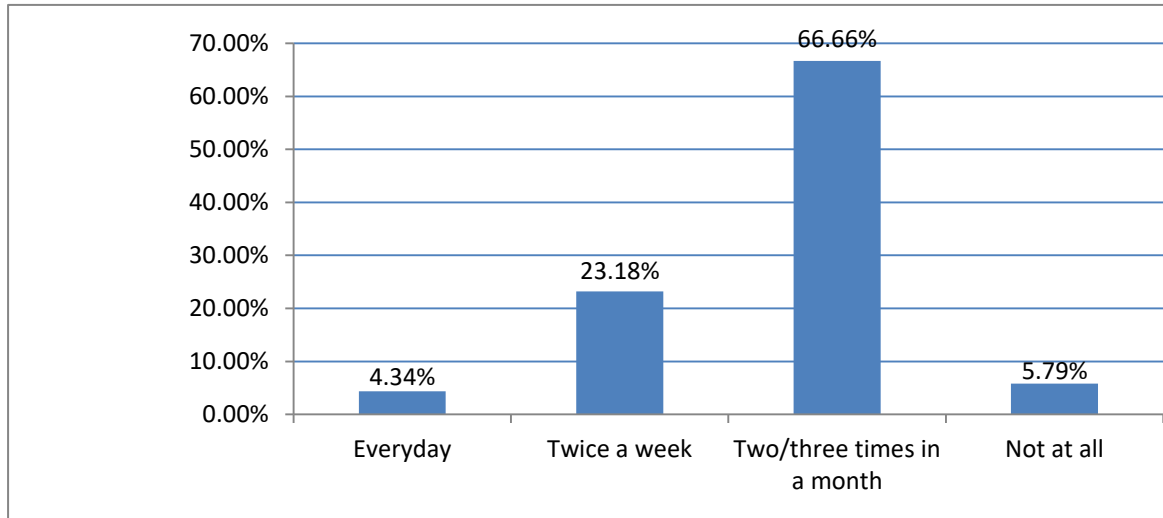
Fig 4.2 Frequency of Library Visit

From the table we can see how frequent faculty members visit the library for teaching and learning. From the figure we can see that 4.34% of the faculty visit the library every day, 23.18% visit the library twice a week and 66.66% visit the library two/three times in a month while 5.79% do not visit the library at all.

4.4   Documents consulted

The following table shows the frequency of the materials which the faculties consult much for teaching and learning.

Table 4.3 Faculty members documents consulted

Sl. No.	Documents	Response	Percentage
1	Books	46	66.66%
2	Journals	8	11.59%
3	E-resources	6	8.69%
4	Books and Journal	4	5.79%
5	Both Books and E-Resource	5	7.24%

(*Source* : Survey Data)

The table showing the frequency of the materials which the faculties consult much for teaching and learning are further represented in Fig 4.3
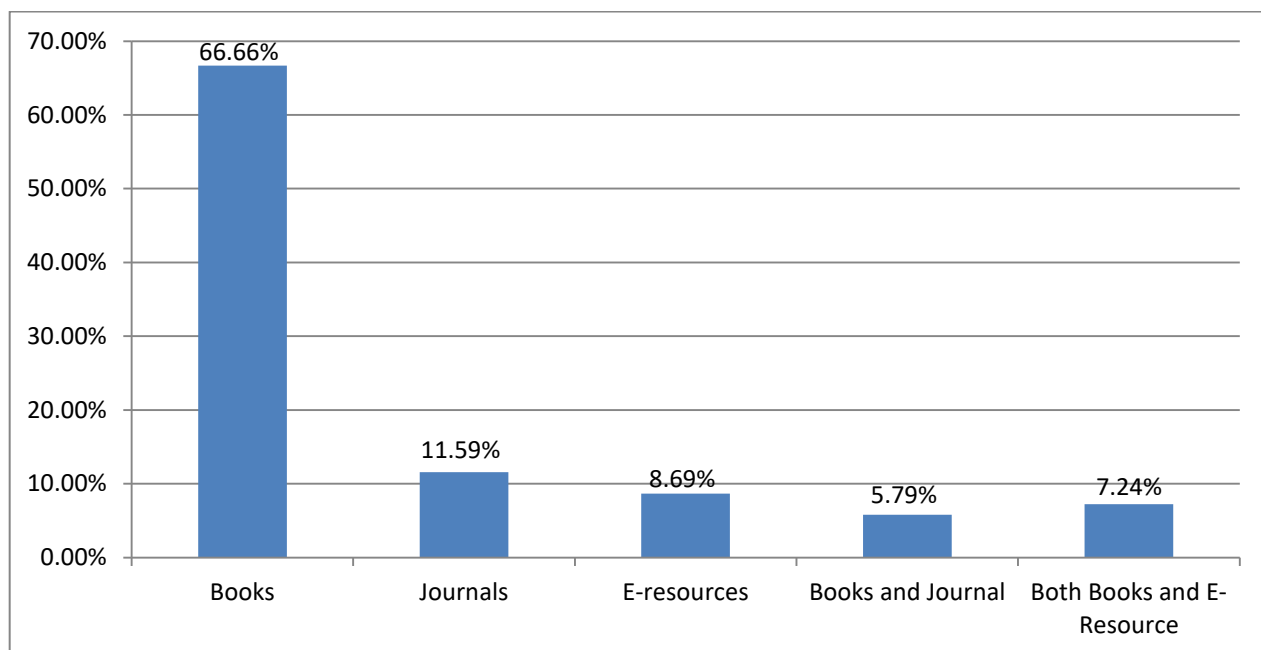
Fig 4.3 Documents consulted by the faculty members

The table and figure shows that majority of the faculties 66.66% are consulted Books for teaching and learning, 11.59% of the faculties are consulted Journals, 8.69% are consulted E-resources and 7.24% are consulted both books and Journals while 5.79% are consulted both Books and E-resource.

4.5 Faculty members browsing Internet

The following table shows the frequency of browsing the internet by the faculty members of colleges in Aizawl city.

Table 4.4 Faculty members browsing the internet

Sl.No	Faculty members browsing the internet	Response	Percentage
1	Every day	53	76.81%
2	2/3 times a week	12	17.39%
3	2/3 times a month	3	4.34%
4	Not at all	1	1.44%

(*Source*: Survey Data)

The table showing the frequency of browsing the internet by the faculty members of colleges in Aizawl city are further represented in Fig 4.4
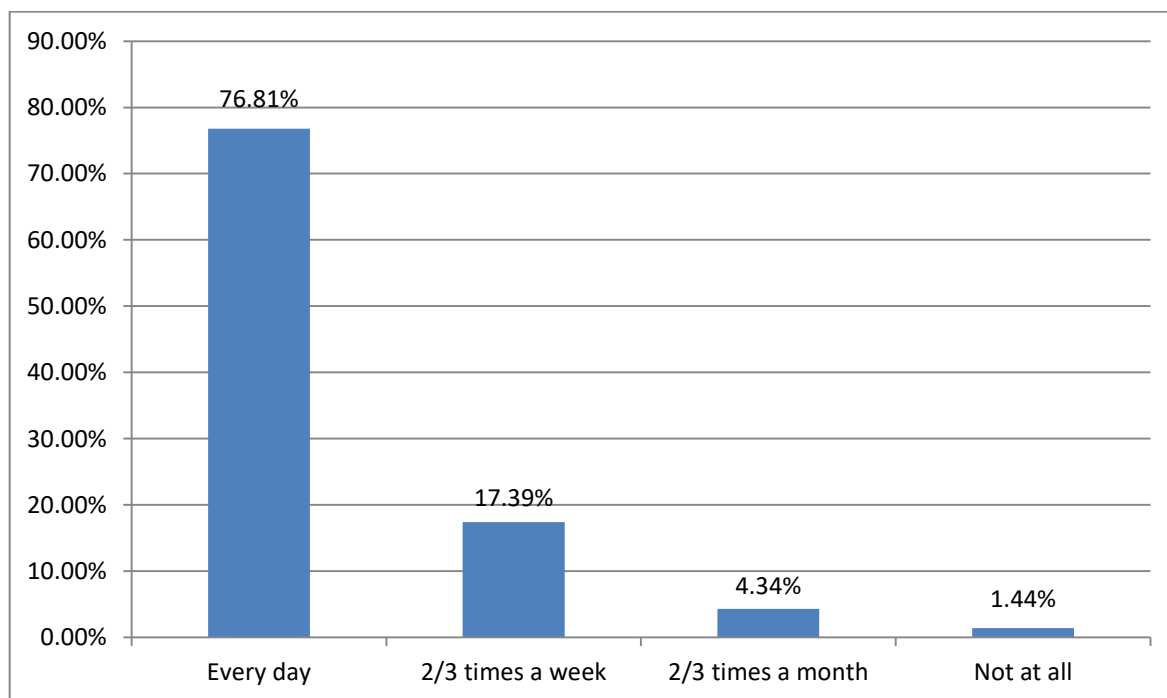
Fig 4.4 Faculty members browsing the internet

The table and figure clearly shows that a majority of the faculty members 76.81% use the internet every day, 17.39% use the internet 2/3 times a week and 4.34% use the internet 2/3 times a month while 1.44% never use the internet.

4.6   Colleges having library website and provision of e-resources

Table 4.5 Colleges having library website and provision of e-resources

Sl. No.	Name of the college	Having website	Providing e-resources
1	Pachhunga University College	Yes	Yes
2	Govt. Aizawl College	Yes	Yes
3	Govt. Hrangbana College	Yes	Yes
4	Govt. Aizawl North College	Yes	Yes

5	Govt. Aizawl West College	Yes	Yes
6	Govt. Zirtiri Residential Science College	Yes	Yes
7	Govt. T.Romana College	Yes	Yes
8	Govt. J.Thankima College	Yes	Yes

<center>(Source : Survey Data)</center>

All the colleges are having library website and provision of e-resources.

4.7   Awareness about N-LIST E-resources

The table shows the awareness of the faculty members about N-LIST e-resources.

Table 4.6 Awareness about N-LIST E-resources

Sl. No.	Awareness	Response	Percentage
1	E-Books	8	11.59%
2	E-Journals	9	13.04%
3	Any other (e-resources)	52	75.36%

<center>(Source : Survey Data)</center>

The table showing the awareness of the faculty members about N-LIST e-resources from the faculty members of colleges in Aizawl city are further represented in Fig 4.5
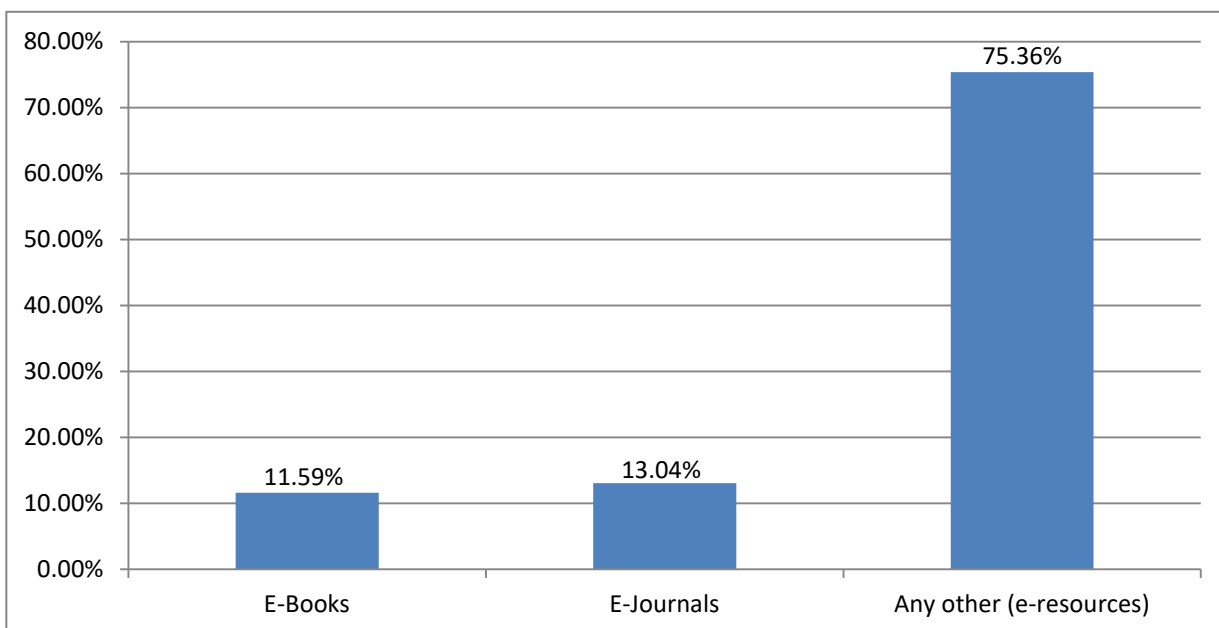
Fig 4.5 Awareness about N-LIST E-resources

The above table and figure shows that the faculty members of 75.36% is not aware of N-LIST. 11.59% are aware of N-LIST E-Books and 13.04% are aware of N-LIST E-Journals.

4.8   Accessing E-Resources

The table shows how faculties use to access-resources for gathering information for teaching and learning.

Table 4.7 Accessing E-Resources

Sl. No.	How faculties access e-resources	Response	Percentage
1	Google	65	94.20%
2	Both google and Yahoo	2	2.89%
3	Any other	2	2.89%

(*Source* : Survey Data)

The table showing how faculties use to access e-resources for gathering information for teaching and learning from the colleges are further represented in Fig 4.6
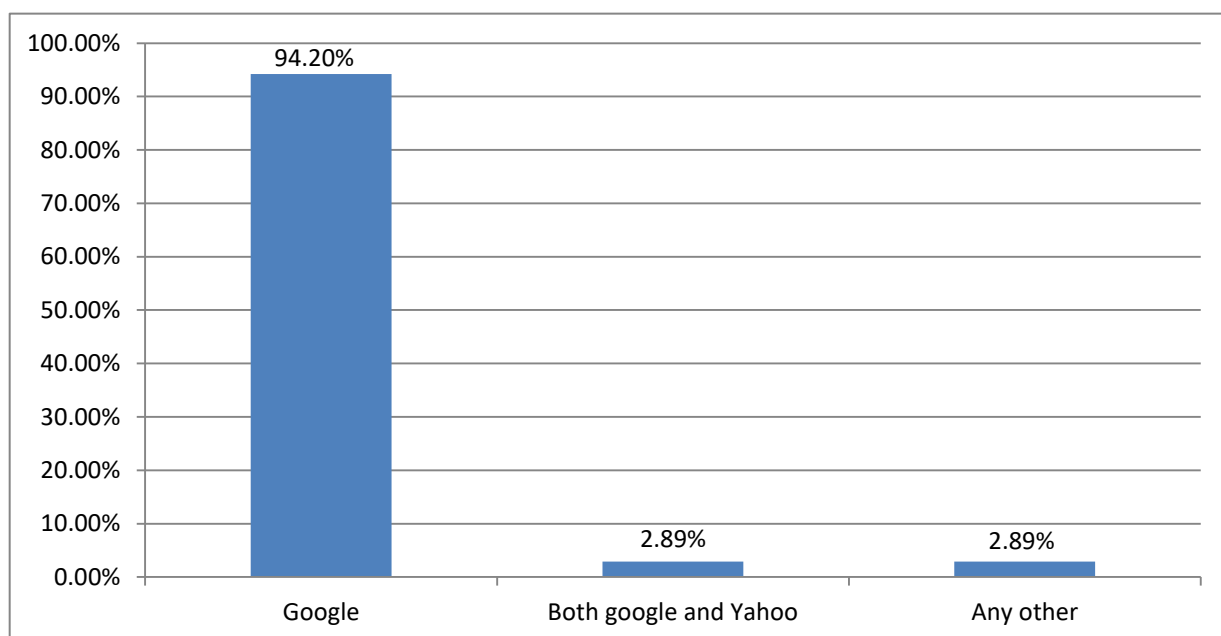
Fig 4.6 Accessing e-resources

The above table and figure shows that the majority of the faculty members 94.20% use Google as their main source of information for accessing e-resources. It also shows that 2.89% use both Google and Yahoo while 2.89% use other source for accessing e-resources.

4.9   Means of Accessing Internet and E-Resources

The table shows how the faculties use different means to access e-resources for teaching and learning.

Table 4.8 Means of Accessing Internet and E-Resources

Sl. No.	Mode of Access	Response	Percentage
1	College Internet (cable)	10	14.49%
2	College wifi	11	15.94%
3	Personal Data Card	33	47.82%
4	Both Data Card and wifi	10	14.49%
5	Both Cable and Data	5	7.24%

(*Source* : Survey Data)

The collected data on the means of accessing internet and e-resources is further represented in Fig 4.7

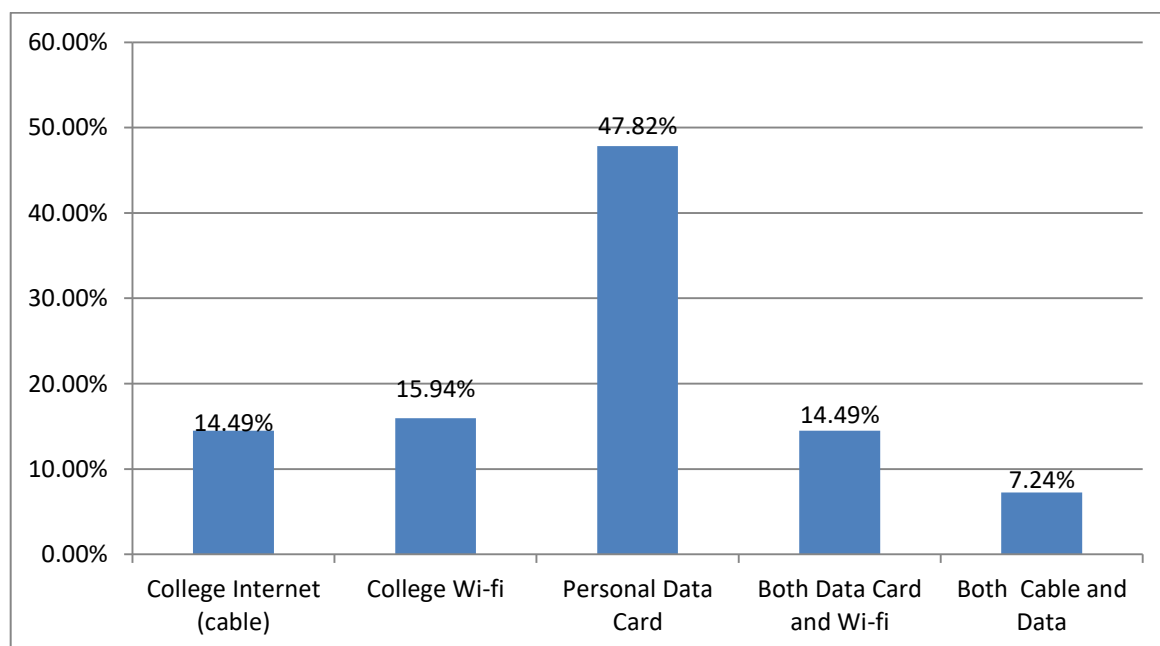**Fig 4.7 Means of Accessing Internet and E-Resources**

The above table and figure shows that the majority of the faculty 47.82% use personal data card for accessing e-resources followed by 15.94% of the faculty using college wifi. The figure also shows that College internet (cable) and both data card and wifi are used by 14.49% of the faculty while 7.24% of the faculty used both college cable and personal data.

4.10   Problems / Constraints Faced in Accessing N-LIST E-Resources

1. Insufficient amount of computer for accessing e-resources.

2. Due to less number of library staff.

3. Due to low speed of network, faculty members find problem in accessing e-resources.

4. Having to purchase a particular paper and article, it is not being able to read fulltext.

5. Only a few of the resources available, the materials are not vast.

4.11   Suggestions to enhance Accessing N-LIST E-resources

1. College authorities may provide good service of wifi internet in the college campus for the faculties.

2. College faculty further suggested encouragement to be given and library staff need to be familiar with the system in the library.

3. Faculty members suggest to open the library 9am to 9pm.

4. More awareness programs need to be conducted for the faculty members either by college authorities or INFLIBNET.

5. Faculty members further suggested acquiring or procuring more number of e-resources for academic and research purposes.

4.12   Findings

The study aims to provide a better understanding on how the faculties from the 8 colleges use and access N-LIST E-resources. The important findings are given below :-

1. From the total circulated 80 questionnaire, 69 questionnaire is responded.
2. From the total respondents of 69, it is shown that the faculties of colleges in Aizawl city make use of Books the most to enhance their teaching and learning   capability.
3. The majority of the faculties 66% visit the library 2/3 times in a month, 23% visit the library twice a week while 4% visit the library every day and the 5% do not visit the library at all.

4. The majority of the faculties 66% are consulted books for teaching and learning,11% of the faculties are consulted Journals and 8% are consulted only e-resources while 5% are consulted both Books and Journals and 7% are consulted Books and Journals and 7% are consulted Books and E-Resources.

5. The majority of the faculty members 76% use the internet every day, 17% use the internet 2/3 times a week and 4% use the internet 2/3 times a month while 1% never use the internet.

6. The faculty members of 75% does not aware of N-LIST while 13% are aware of N-LIST e-journals and 11% the faculties are aware of N-LIST e-books.

7. The majority of the faculty members 94% use Google as their main source of information for accessing e-resources. It also shows that 2% use both Google and Yahoo while 2% use other source for accessing e-resources.

8. The majority of the faculty 47% use personal data card for accessing e-resources followed by 15% of the faculty using college wifi. College internet (cable) and both data card and wifi are used by 14% of the faculty while 7% of the faculty used both college cable and personal data.

9. Google is the main source for accessing information and is the most commonly used application among the faculties.

10. College are needed more computers with good services of wifi in the campus to access more e-resources.

11. All the colleges of Aizawl city are registered in N-LIST and also provide e-resources through their college website.

12. Personal data card is an important tool for accessing e-resources and is the most commonly used application among the faculties.

The following chapter presented the conclusion of the present study with suggestions for optimal use of N-LIST e-resources by the faculty members for their academic and research purposes.

CHAPTER - 5

CONCLUSION AND SUGGESTIONS

5.1   Conclusion

The study present assumes great importance considering the vast amount, variety and quality of e-resources being provided by N-LIST for the academic development of faculty members in college. The Scholar made a sincere attempt in getting the responses of 69 faculty members out of 80 so as to know the usefulness of these N-LIST e-resources and the response was very much encouraging. Although Aizawl city is located in the remote part of North-East region still 8 colleges out of 9 colleges are members of N-LIST and availing the facility of N-LIST e-resources and services. The present study also further improved the awareness among the faculty members who have never get themselves acquired with N-LIST resources and services provided by INFLIBNET Centre (UGC). The faculty members have realised the fact that in the present age of digital technology and technology enabled learning, it is very much important to access e-resources because of its convenience in accessing, searching, storing and retrieving. Besides the quality of these e-resources are of high quality. The faculty members attached to feel it is a boon for their academic development and does not face themselves isolated and less privileged as compared to faculty members of other colleges located in the developed cities and towns of rest of India. Hence, the present study conducted by the scholar was very much important in the interest of the academic development of college faculty members located in Aizawl city.

5.2   Suggestions

Based on the present study following suggestions are given by the respondents for the improvement of the N-LIST Services provided to the college faculties to access scholarly e-resources (e-journals, e-books, and online databases) :-

1. College authorities may provide more computers with good service of wifi internet in the college campus to access more e-resources.

2. Bandwidth capacity of colleges under the N-LIST programme may be increased for speedy access to e-resources.

3. More awareness programs need to be conducted for the faculty members for optimum use and usefulness of e-resource and more specifically N-LIST e-resources.

4. There must be provision of regular User Awareness Programme/Orientation Programme to be organised by the respective College Libraries and INFLIBNET Centre. The LIS professionals and Users should be encouraged to participate in such training programme.

5. Library staff need to be familiar with N-LIST access facility to assist users. More coordination is required between teachers and library staff to increase the usage of e-resources.

6. Faculty members further suggested acquiring or procuring more number of e-resources for academic and research purposes.

7. Un-interrupted power supply with backup should be made available for optimum utilisation of the e-resources which are available to the colleges.

8. It should be made mandatory for all the college faculties to avail of the facility of N-LIST resources and services.

9. In each colleges, downloading facility should be made available to faculty.

10. The library working hours should be from 9am to 9pm.

APPENDIX

QUESTIONNAIRE

USE OF N-LIST RESOURCES BY THE FACULTY MEMBERS OF COLLEGES IN AIZAWL CITY

(N-LIST is a consortium of e-resources designed and developed by INFLIBNET Centre (UGC) at Gandhi Nagar to provide electronic books, journals and other educational resources for the benefit of college faculty members and students.)

QUESTIONNAIRE

1. Name of college :

2. Name and Designation of the faculty member :
   Sex : M/F

3. Name of the Department :

4. Frequency of visit to Library :

   ☐ Everyday   ☐ Twice a week

   ☐ Two/three times in a month   ☐ Not at all

5. Documents you consult much :

   ☐ Books   ☐ Journals

   ☐ e-sources   ☐ Any other please mention

6. How frequently do you browse the Internet :

   ☐ Every day   ☐ 2/3 times a week

   ☐ 2/3 times a month   ☐ Not at all

7. Whether your college has its own website :

   ☐   ☐

Yes   No

8. Whether your library provides e-resources through the college website :

☐ Yes   ☐ No

9. Are you aware of N-LIST e-resources provided by Inflibnet Centre (UGC)?

☐ Yes   ☐ No

10. What are the common N-LIST e-resources you access?

_____

_____

11. How do you browse/access other e-resources for your teaching, learning and research :

☐ Google   ☐ Yahoo

☐ Any other (please specify)

12. How do you access e-resources :

☐ College Internet (cable)   ☐ College Wifi

☐ Personal Data Card   ☐ Any other (please specify

13. What problems/constraints do you face while accessing N-LIST e-resources?

_____

_____

14. How do you find N-LIST e-resources beneficial for teaching, learning and research?

    _____

    _____

15. Suggest some measures to be undertaken by the college authorities to enhance access to N-LIST e-resources for teaching, learning and research

        i)
        ii)
        iii)

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ABSTRACT

USE OF N-LIST RESOURCES BY THE FACULTY MEMBERS OF COLLEGES IN AIZAWL CITY

A dissertation submitted in partial fulfillment of the requirement for the Degree of Master of Philosophy in Library and Information Science

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ABSTRACT

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1. Introduction

The emergence, growth and popularity of information and knowledge society have a great impact on knowledge and learning. This has necessitated a large number of e-resources and its usage for academic and research development. The E-resources plays a vital role in all over the world, it is accepted by all kinds of people because of its accessibility, affordability, usability and readability. E-resources have a prominent role to play in supporting higher education and in fulfilling educational objectives. E-resources are rich source of information for those students as well as teachers and scholars.

Advances in Information and Communication Technology (ICT) applications during the past few decades have brought radical changes in the way information is gathered, store, organized, accessed, retrieved and consumed. The application of computers in information processing has brought several products and services to the scene. The Internet and the Web are constantly influencing the development of new modes of scholarly communication; their potential for delivering goods is quite vast, as they overcome successfully the geographical limitations associated with the print media. Further, the distribution time between product publication and its delivery has been drastically reduced. The Internet can be used for efficient retrieval and meeting information needs. This important fact is convincing many libraries to move towards digital e-resources, which are found to be less expensive and more useful for easy access.

2. Scope and Significance of the Study

Electronic Resources are becoming very important these days as they are more up-to-date, and can be accessed anywhere, crossing all geographical boundaries. E-resources are rich source of information. It can be says that college faculty members play the most important role for the development of colleges, they are the backbone of education in Mizoram.

The scope of the present study is confined to the faculty members of colleges those are member of N-LIST located in the area of Aizawl city. There are 9 colleges situated within the boundary of Aizawl city (as shown in Table 2.1). As per the statistics available in the N-LIST website (https://nlist.inflibnet.ac.in/) , 8 colleges have registered from the city of Aizawl. N-LIST e-resources are considered important component of academic activities. The present study assumes great importance in view of the growth and popularity of e-resources and its use by the faculty members to enhance teaching, learning and research activity. The present study with further explore the extent of use of e-resources provided by N-LIST, their effectiveness and benefits to college faculty members and to identify technical and technological barriers in accessing these e-resources.

Table 2.1 List of Colleges in Aizawl City

Sl. No	Name of the College	Year of estd.	No. Of faculties	N-LIST Membership
1	Pachhunga University College	1958	100	Yes
2	Govt. Aizawl College	1975	55	Yes
3	Govt. Hrangbana College	1980	71	Yes
4	Govt. Zirtiri Residential Science College	1980	59	Yes
5	Govt. Aizawl North College	1988	27	Yes
6	Govt. Aizawl West College	1990	36	Yes
7	Govt. T.Romana College	1992	38	Yes

8	Govt J.Thankima College	1992	24	Yes
9	Govt. Johnson College	1993	28	No

3.   Research Design

3.1 Statement of the Problem

The N-LIST resources provided by INFLIBNET centre mainly cover colleges and all the 8 out of 9 colleges on the study are the members of N-LIST. Therefore it is important to know the types, varieties and subject wise e-resources provided by N-LIST for the academic development of faculty members. It is important to know the extent of use by the faculty members of the selected colleges and others technical and technological problems confronted by the faculty members for its easy access. The study helps the college authorities in Mizoram and INFLIBNET authorities to make it more effective and efficient. All these reasons prompted and motivated me to take up this research problem.

3.2 Objectives of the Study

The objectives of the study are to :

1.   Identify the variety of e-resources provided through N-LIST.

2.   Study the benefits of these e-resources for college teachers in Aizawl city for teaching, learning and research.

3.   Suggest the ways and means of optimum use these e-resources and problems confronted with access.

4.   Research Methodology

4.1 Data Collection, Analysis and Interpretation

The study is designed to determine the use of N-LIST e-resources by the faculty members of colleges in Aizawl city. The study applied a qualitative method which is

descriptive in nature adopting random sampling technique to gather data through questionnaire which is circulated to 10 faculty members of each 8 colleges located in Aizawl city. The questions were designed in such a way that the answers can be given by selecting one of the possible answers provided in the questionnaire and some questions by checking yes or no. Analysis and interpretation of data is the most important part of research as it leads to the findings of a research work. The data obtained from the questionnaire analysed by using a suitable statistical tool which will be supported by tables and graphs to represent the data.

5. Findings

The study aims to provide a better understanding on how the faculties from the 8 colleges use and access N-LIST E-resources. The important findings are given below :-

1. From the total circulated 80 questionnaire, 69 questionnaire is responded.

2. From the total respondents of 69, it is shown that the faculties of colleges in Aizawl city make use of Books the most to enhance their teaching and learning capability.

3. The majority of the faculties 66% visit the library 2/3 times in a month, 23% visit the library twice a week while 4% visit the library every day and the 5% do not visit the library at all.

4. The majority of the faculties 66% are consulted books for teaching and learning,11% of the faculties are consulted Journals and 8% are consulted only e-resources while 5% are consulted both Books and Journals and 7% are consulted Books and Journals and 7% are consulted Books and E-Resources.

5. The majority of the faculty members 76% use the internet every day, 17% use the internet 2/3 times a week and 4% use the internet 2/3 times a month while 1% never use the internet.

6. The faculty members of 75% does not aware of N-LIST while 13% are aware of N-LIST e-journals and 11% the faculties are aware of N-LIST e-books.

7. The majority of the faculty members 94% use Google as their main source of information for accessing e-resources. It also shows that 2% use both Google and Yahoo while 2% use other source for accessing e-resources.

8. The majority of the faculty 47% use personal data card for accessing e-resources followed by 15% of the faculty using college wifi. College internet (cable) and both data card and wifi are used by 14% of the faculty while 7% of the faculty used both college cable and personal data.

9. Google is the main source for accessing information and is the most commonly used application among the faculties.

10. College are needed more computers with good services of wifi in the campus to access more e-resources.

11, All the colleges of Aizawl city are registered in N-LIST and also provide e-resources through their college website.

12. Personal data card is an important tool for accessing e-resources and is the most commonly used application among the faculties.

6.   Conclusion

The study present assumes great importance considering the vast amount, variety and quality of e-resources being provided by N-LIST for the academic development of faculty members in college. The Scholar made a sincere attempt in getting the responses of 69 faculty members out of 80 so as to know the usefulness of these N-LIST e-resources and the response was very much encouraging. Although Aizawl city is located in the remote part of North-East region still 8 colleges out of 9 colleges are members of N-LIST and availing the facility of N-LIST e-resources and services. The present study also further improved the awareness among the faculty members who have never get themselves acquired with N-LIST resources and services provided by INFLIBNET Centre (UGC). The faculty members have realised the fact that in the present age of digital technology and technology enabled learning, it is very much important to access e-resources because of its convenience

in accessing, searching, storing and retrieving. Besides the quality of these e-resources are of high quality. The faculty members attached to feel it is a boon for their academic development and does not face themselves isolated and less privileged as compared to faculty members of other colleges located in the developed cities and towns of rest of India. Hence, the present study conducted by the scholar was very much important in the interest of the academic development of college faculty members located in Aizawl city.

7.   Suggestions

Based on the present study following suggestions are given by the respondents for the improvement of the N-LIST Services provided to the college faculties to access scholarly e-resources (e-journals, e-books, and online databases) :-

1. College authorities may provide more computers with good service of wifi internet in the college campus to access more e-resources.

2. Bandwidth capacity of colleges under the N-LIST programme may be increased for speedy access to e-resources.

3. More awareness programs need to be conducted for the faculty members for optimum use and usefulness of e-resource and more specifically N-LIST e-resources.

4. There must be provision of regular User Awareness Programme/Orientation Programme to be organised by the respective College Libraries and INFLIBNET Centre. The LIS professionals and Users should be encouraged to participate in such training programme.

5. Library staff need to be familiar with N-LIST access facility to assist users. More coordination is required between teachers and library staff to increase the usage of e-resources.

6. Faculty members further suggested acquiring or procuring more number of e-resources for academic and research purposes.

7. Un-interrupted power supply with backup should be made available for optimum utilisation of the e-resources which are available to the colleges.

8. It should be made mandatory for all the college faculties to avail of the facility of N-LIST resources and services.

9. In each colleges, downloading facility should be made available to faculty.

10. The library working hours should be from 9am to 9pm.

8.   Chapterization

 The present study comprises the following chapters :

Chapter 1 describes a brief introduction with the meaning of e-resources including the scope and significance of the study, review of literature, research design consisting of the statement of the problem, objectives of the study followed by the research methodology and data collection, analysis and interpretation.

Chapter - 2 entitled College and their library scenario in Mizoram and each of the college history and about the faculty members and Library.

Chapter - 3 of the study consists of the definitions and different types of e-resources. It also consists the meaning of N-LIST and its e-resources for colleges, the benefits of these e-resources for college teachers in Aizawl city for teaching, learning and research.

Chapter - 4 of the study deals with the data analysis and findings.

Chapter - 5 of the study contains suggestions and conclusion.