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## Application of Library Materials in Management and Security Systems

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### Abstract

*This study explores the application of library materials in the management, protection, and security arrangement systems within colleges in Mysore. The research investigates the current practices in library resource management, including cataloguing, circulation, and digital integration, as well as the protective measures adopted to prevent loss, theft, and damage. Through surveys and interviews conducted across various Mysore colleges, the study identifies the strengths and gaps in existing systems, evaluates the use of technology such as RFID, CCTV surveillance, and access control, and highlights the role of staff training in maintaining a secure library environment. The findings aim to offer insights into best practices and propose recommendations to enhance the overall efficacy and safety of library operations in academic institutions*

### Keywords

Application of Library Materials; Library Management; Security Systems; Preservation

### Electronic access

The journal is available at [www.jalis.in](http://www.jalis.in)

DOI: **10.5281/zenodo.15193259**



**Journal of Advances in Library and Information Science**  
ISSN: 2277-2219 Vol. 14. No.2. 2025. pp.126-131

## 1. Introduction to subject

This research paper investigates the requirement for different kinds of materials made up of metal, wooden, and electronic items for the successful and easy operations of library activities, besides having huge volumes and numbers of text and other books held in the library.

The different kinds of materials that are present in different types of libraries are listed as follows:

1. Chairs and tables –( for study and for librarians and issue counters )- different kinds
2. Bookshelf , cupboards , lockable & open-row - row shelves ( sturdiness and stability)
3. Trellised to shift books from the issue counter to the bookshelves
4. Printed Book protecting preservatives ( like book-protecting chemicals, shredded snake skin , tamarind powder etc... special materials such as acid-free boxes, white paper, and archival-quality covers made of cloth, linen, or leather etc..)
5. Palm leaf old books protecting and archiving equipments, microfilming equipment
6. Study cabins ( properly ventilated and spacious )
7. Computer and its accessories (printers, scanners, bar code readers etc..)
8. CC-cameras and monitoring library asst and books security and safety systems
9. Speakers and announcement systems used in large libraries for announcing the closing of the library and asking all the persons in the side library to vacate for closing time.
10. Fire protection systems and auto fire extinguishers

The research paper studies the quality and types of these materials required for the successful utility of the library and its lofty objectives and mission.

## 2. Literature survey

In the beginning of the research work done for this research paper regarding materials, its quality and types of requirements, the author of the paper has done a brief literature survey to understand the subject and the new research outcomes and importance of different kinds of materials in the area of Library science and library management:

Here are abstracts from several research papers related to the study of library materials, along with their references:

1. Enhancing the Availability and Accessibility of Library Materials to Students through Reprographic Services in Academic Libraries in Imo State (A Case Study of Alvan Ikoku College of Education) says in their paper that “enhancing the availability and accessibility of library materials to students through reprographic services in academic libraries in Imo State, using a comparative approach to study Alvan Ikoku Federal College of Education, Owerri. The survey method was employed, with fifty-six questionnaires administered to library staff. Data analysis revealed that photocopying machines are the primary method used for duplicating and preserving library materials. The study identified lack of staff training, inadequate funding, and maintenance challenges as prominent factors affecting the availability and accessibility of library materials. Recommendations include staff training, policy regulation, and increased funding.

2. Organization, Preservation, and Conservation of Library Materials: A Case Study of Lagos State University Library, Ojo-Lagos - says in their paper that the trends in collection development and how information resources are preserved in Lagos State University Library, Ojo-Lagos. The findings reveal that collection development aids in conserving information resources, reflecting the library's mission to collect, organize, preserve, and conserve. The study recommends serious consideration of collection development policies and adequate funding for resource maintenance to enhance preservation and conservation efforts.

3. Preservation and Conservation of Library Materials in University Libraries in Southwest, Nigeria - says in their paper that preservation and conservation practices in university libraries in Southwest Nigeria. Using a descriptive survey design, data were collected from 308 respondents. Findings indicate that library security is the most utilized preservation practice, with dust and particulate matter being the primary causes of material deterioration. Techniques such as dusting, cleaning, and proper shelving are commonly adopted. The study concludes that inadequate preservation practices lead to resource loss and recommends the deployment of modern preservation tools, including ICT devices, to enhance the durability of information materials.

4. Preservation and Conservation of Library Materials in the Digital Age says in their paper that preservation and conservation as measures to

maintain library materials in their original format. It examines causes of deterioration, including poor paper manufacturing, improper storage, and pests, as well as the impact of electronic preservation methods. Challenges and strategies for preserving digital materials are also discussed.

5. The Preservation and Conservation of Library Materials: The Case of Federal University of Technology Library and Imo State University Library, Owerri, Imo State - says in their paper that the methods adopted by the Federal University of Technology, Owerri, and Imo State University libraries to preserve and conserve their materials. A survey method was used, with data collected from 209 respondents. Findings reveal that the libraries' management is not adequately conserving and preserving their collections against deteriorative agents. Recommendations are provided for better management of library materials.

6. Preservation of Library Materials in Select University Libraries of Haryana: A Study - says in their paper that preservation activities in select university libraries in Haryana. A structured questionnaire was distributed, and results show that while library interiors are in good condition, there is no written preservation policy. Dust, temperature, humidity, and insects are major causes of deterioration in print materials, whereas technical obsolescence and viruses affect non-print materials. Common preservation techniques include digitisation, cleaning, and stain removal. Challenges include a shortage of trained staff and lack of awareness among users.

7. “Library Materials and Human Health: Vulnerability and Preservative Measures “- says in their paper that the effects of library-associated organisms on materials and users in selected Nigerian libraries. It analyzes the impact of biotic and abiotic factors on library materials and users, investigates environmental conditions that support these organisms, and discusses preventive measures. The study emphasizes the importance of regulating library environments to ensure the safety of both materials and users.

The following study reveal that a comprehensive study of all these materials has not been done in the previous research papers and there is GAP in the research. So this study of all materials on a

comprehensive platform has been conducted. So this research.

### 3. Objectives of the study

The objectives of this paper is to investigate the following vast different varieties of materials used in the library on a comprehensive style and way of research about their quality , the types, utility , the accident prone and protection systems , conservation and microfilming special materials , cc cameras etc.. The following materials are investigated in the research by discussion and questionnaire study with librarians, their assistants and students who are using the library on the following set of materials : .

2. Chairs and tables –( for study and for librarians and issue counters )- different kinds
3. Book shelf , cupboards , lockable & open - row shelves ( sturdiness and stability)
4. Trellised to shift book from issue counter to the book shelf's
5. Printed Book protecting preservatives ( like book protecting chemicals , the shedded snake skin , tamarind powder etc... special materials such as acid-free boxes, white paper, and archival-quality covers made of cloth, linen, or leather etc..)
6. Palm leaf old books protecting and archiving equipments , microfilming equipments
7. Study cabins ( properly ventilated and spacious )
8. Computer and its accessories (printers, scanners, bar code readers, bar code printers and etc..) and olden types of cardex boxes and library cards systems.
9. Ledgers and accession books for monitoring on manual levels the issue and receipts of books and about new purchases and scrapping of old and dilapidated books
10. CC-cameras and monitoring library asst and books security and safety systems
11. Speakers and announcement systems used in large libraries for announcing the closing of library and asking all the persons in side library to vacate for closing time.
12. Fire protection systems and auto fire extinguishers systems designed especially for library.

### 4. Research methodology

A vast different varieties of materials made out of wood , steel and electronic materials are used in the library. A comprehensive style of research is undertaken with finding the about their quality and the type requirements for each type of libraries. And also the research investigate if any the accident prone and protection systems and materials, conservation and microfilming special materials, cc cameras etc.. Which are used in specialized libraries are also studied and investigated upon. The following materials listed in the objectives are investigated in the research by discussion and questionnaire study with librarians, their assistants and students who are using the library on the following set of materials listed in the objectives. These materials are comprehensive in nature and covering almost all the materials used in the library management systems.

The methodology of research conducted is the distribution of questionnaires to librarians, library assistants and students about the utility mapping and requirement of change , modification in the system of the use of following materials listed in the objectives The survey was twofold and a comparative study between the librarians, library assistants on one side and the requirement mapping with the students have been done

#### The stratification of data of respondents selected for the research is as follows:

College Name	Librarians	Library Asst.	Students	Total
Somani college	1	2	100	103
Sharada vilas college,	1	3	100	104
Maharaja college	3	12	100	115
Yuvaraja college	3	12	100	115
Maharani college	3	12	100	115
Total	11	41	50	552

Five units are selected and the choice of librarians were done on the basis of convenient sampling as the number of librarians and their assistants were very few. But the number of students were numerous a random sample of hundred number of students have been selected for the survey w.r.t the presence or absence of the respective materials in their library, if present the quality and the mapping of the requirement for improvement if required by

librarians, Library assistants and students as per the study.

## 5. Conclusions of research

**The following suggestions and conclusions have been drawn from the research survey conducted in three colleges w.r.t to each of the respective materials as explained below:**

a) Chairs and tables –( for study and for librarians and issue counters )- different kinds :

- A librarian uses round tables and revolving chairs for their convenience to keep the books returned to the shelf kept besides for storing books temporarily returned, before they are kept in the specified place in the library. The round table should be spacious enough to accommodate computers, printers, barcode readers, etc..

**The study revealed that these materials are present in the survey libraries but must be improved a lot.**

- Large and spacious tables in reading halls of library with convenient and chairs - ergonomically designed to sit for hours of reading should be kept in these halls.

**The study revealed that these materials are present in the survey libraries but must be greatly improved.**

b) Book shelf , cupboards , lockable & open - row shelves are to be

- sturdy and stable such that when the books are pulled from the shelf . The shelf should not shake or fall to a side .

**The study revealed that there is a presence of these materials in the survey libraries, but has to be improved a lot with sturdiness and stability. The sharp edges of steel shelf's have to be changed in some libraries.**

- This is a very important protection precaution that should be used while indenting shelf and chairs from the vendors. Both steel and wooden shelves' are being used in all libraries. Some libraries use wall embedded shelf's to save space and to lock some important reference books and manuals.

**The study revealed that there is presence of these materials in the survey libraries, but has to be improved a lot in most of libraries.**

c) Trolleys to shift books from issue counters to bookshelves are used in large libraries where thousands of books are being returned and issued daily.

**The study revealed the absence of trolleys in most survey libraries, but there is a requirement for the same.**

d) Printed Book protecting preservatives and other items of protection: like

- Book-protecting chemicals and preservatives will not affect the library employees or the students who use the library. They should use non-allergic chemicals and preservatives for this purpose.
- The shredded snake skin, tamarind powder, etc. are ancient ayurvedic materials that are believed to protect the books from bookworms, etc..
- Other special materials such as acid-free boxes, white paper, and archival-quality covers made of cloth, linen, or leather etc..are used to protect the old books and to be protected.
- Some very valuable manuscripts are being protected by laminating every sheet of the books.
- Palm leaf old books protecting and archiving equipment, microfilming equipment

**The study revealed that there is a partial presence of the preservative chemicals in most of the survey libraries, but there is a requirement for the same, and there is a need to improve the quality and quantity of preservatives.**

e) Study cabins used for research scholars have to be properly ventilated and spacious in nature and they may need in present days internet enabled computer systems for access of digital libraries .

**The study revealed that there is absence of separate Study cabins for research scholars and serious students in most of the survey libraries, but there is requirement for the same .**

f) Computer and its accessories :

- Computers with printers, scanners, bar code readers, bar code printers and etc.. are used in the modernised library systems which give the library cards embedded with bar code readers to code the student name , batch and roll numbers or unique library code given which will be kept in lieu of the issue of books . the computer system will also read bar code number embedded on each book which gives details of the accession number of the book with associated data base stored in the computer library software systems to show that it has been issued .
- In olden types of library, carder boxes and library cards systems were used .
- Even in the present times the Ledgers and accession books are used . but olden times and some small libraries still ledgers and accession books are used for monitoring on manual levels the issue and receipts of books and about new purchases and scrapping of old and dilapidated books

**The study revealed that there is presence of these computer accessories, bar card readers etc.. in the survey libraries , but has not been fully utilised as the sturdy software is absent in most of the survey libraries.**

g) CC-cameras and monitoring systems are used to ease tension of library guards and assistants in the protection and security of the books to safe guard the sanctity of the library .

**The study revealed that there is presence of these CC-cameras and monitoring systems. in the survey libraries , but has not been fully utilised as there is no monitoring personnel at the terminal to monitor in the library hours in most of the survey libraries.**

h) Speakers and announcement systems used in large libraries for announcing the closing of library and asking all the persons in side library to vacate for closing time , so that no body gets locked in the night times inside the library when it is locked after 9pm till next day morning 8am.

**The study revealed that there is absence of the Speakers and announcement systems in most of the survey libraries, but there is requirement in the large libraries of maharaja, yuvaraja and maharani's colleges and small libraries of unit1 & 2 libraries are requiring this type of systems.**

i) Fire protection systems and auto fire extinguishers are used in some modern libraries to protect The library and the valuable books from fire accidents .

**The study revealed that there is Total absence of the Fire protection systems and auto fire extinguishers systems in most of the survey libraries**

## 6. Scope for further study

The future researchers could undertake research in the other library systems materials research can be done in other types of special libraries and materials used in a detailed way like archaeological libraries, oriental research libraries doing research and preservation of palm leaf books and old dilapidated books - to find the requirement of protection systems , its quality and types of new type of materials with electronically and robotically equipped systems for protection and preservation.

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