

A B C o f L I S R e s e a r c h

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User expectations

- Users expect value added services, easy to use interface and want tailored information relevant to their needs
- Prefer to use the various information resources available in electronic form through a single click

Occupational changes

- Digital era needs not only a traditional Librarian but it needs Knowledge Manager, Information Expert or Resource Manager
- The librarian needs to hone his/her skills and knowledge to deliver the expectations of today's users

Competencies

- Knowledge managers have to have the domain knowledge of their specific subject
- At the same time, one should not ignore the core library subjects and our role in the knowledge generation-supply-use chain

Path of Progress

- Need to keep one self updated about the technological developments as well as domain specific subjects
- Also one needs to keep abreast of latest research happening in the library field
- Need to add to the knowledge corpus in the field of library science by carrying out research in the areas we work in

What is research ?

- Research is a systematic investigation designed to develop or contribute to generalize the observed phenomenon
- Research and development is a backbone of any profession

Need of Research

- Whenever traditional theory is found lacking in explaining the existing phenomena and a novel situation is faced, research originates
- Research rejects either old theories or modifies them or suggests new theories

Definition

- The Webster's International Dictionary (1986) defines research as “a careful, critical enquiry or examination in seeking facts or principles, diligent investigation in order to ascertain something.”

Why is research important ?

- It inculcates scientific and inductive thinking and it promotes the development of rational thought process
- It enables finding of solutions to problems and to resolving conflict in society

Research Culture

- Times Higher Education (THE) report states that in India there is an absence of commitment towards research
- Workshops organized by Knowledge Consortium of Gujarat (KCG), across the state, will help in building a culture of research in Gujarat

Forms of Research output

- Research articles published in Journals and Conference Proceedings
- Dissertation (Master degree)
- Thesis (Ph D degree)
- Patents

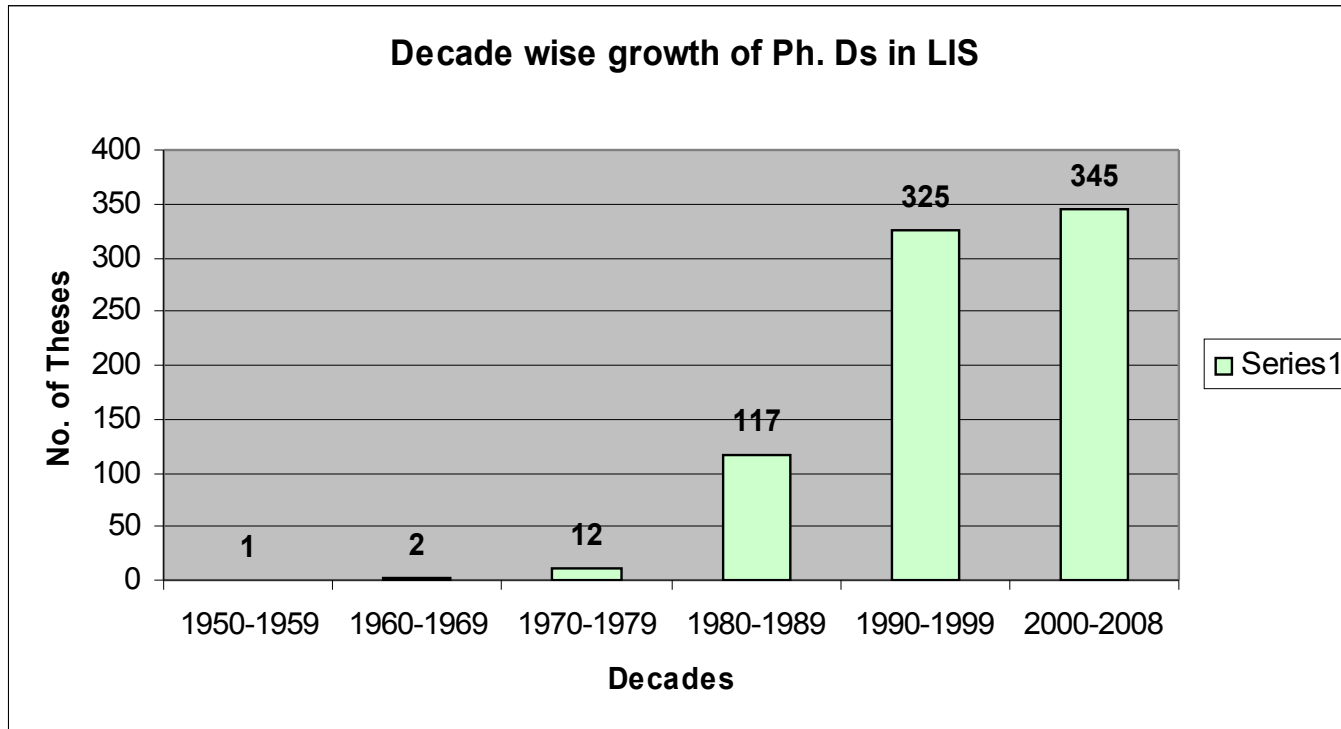
Doctoral Research

- Thesis is a document submitted in support of candidature for a degree or professional qualification presenting the author's research and findings
- Boyer (1973) describes it as "the capstone to a formal academic training process"

Research Programme in LIS in India

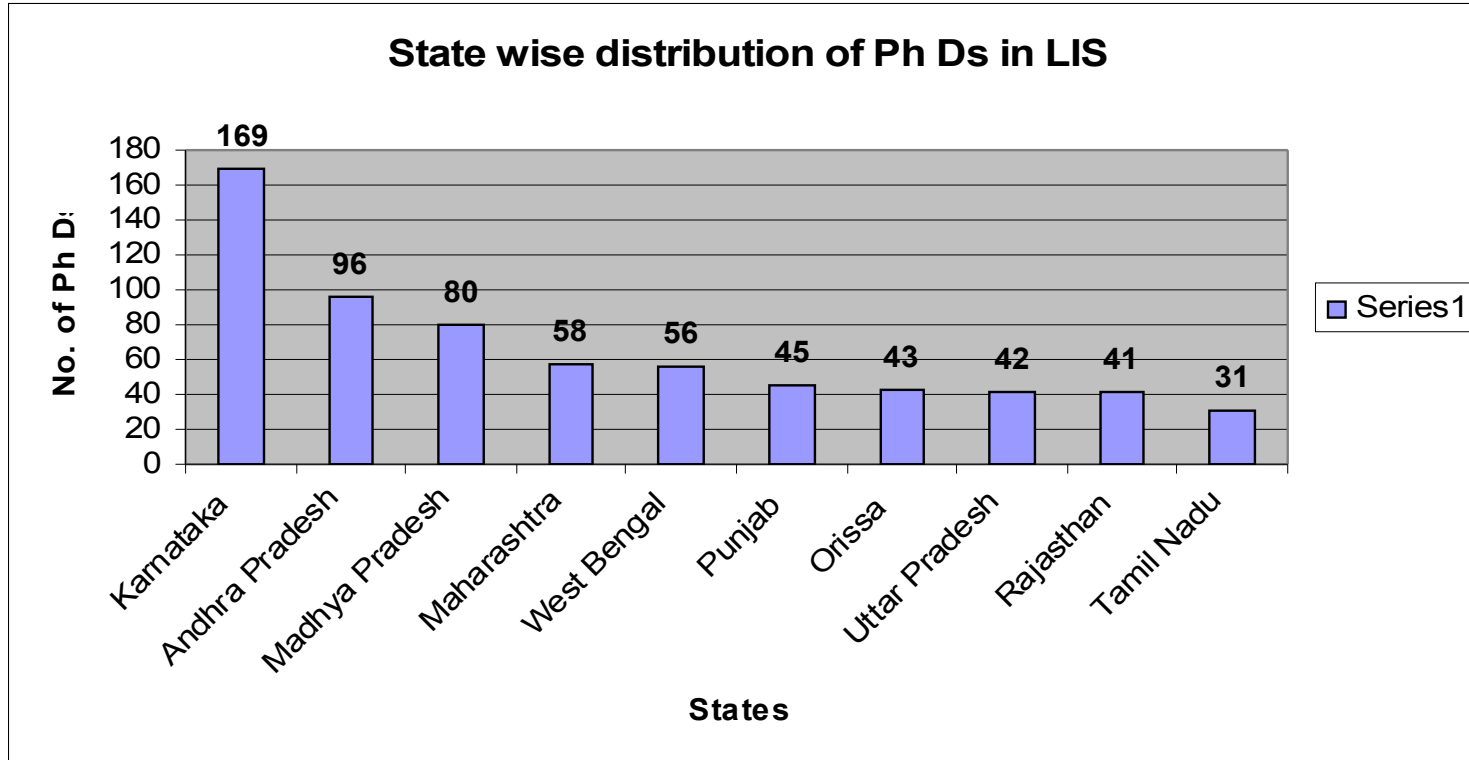
- University of Delhi was the first university to institute the doctoral programme leading to Ph.D. in Library Science in 1951
- Dr. D.B. Krishna Rao was the first recipient of Ph.D. in Library Science in India in 1958 from University of Delhi, under the guidance of Dr. S. R. Ranganathan

Research Trend : Decade wise



(Source : Chandraekhar M and Ramasesh (2009))

Research Trend : State wise



(Source : Chandraekhar M and Ramasesh (2009))

Research Trends : Topics

Decade	Subjects undertaken
1950's – 1970's	Types of Libraries (public, academic), facet analysis, history of librarianship, universe of knowledge and topics depicting classical approach to librarianship.
1970 – 1980	Library services, documentation, users' surveys, needs identification, technical processing, cataloguing, resource sharing.
1980's – 2000	Bibliometric studies, computer applications, children's literature, bibliographic data bases, patent literature, collection development.
1990's – 2000	Networks and networking, Internet, non-book material, preservation, distance and continuing education, Total Quality Management, Library automation, Systems approach, Library software.
2000– onwards (Secondary Stage)	Grey Literature, institutional repositories, open archives, consortia, content management, knowledge management, ontology, metadata

(Source : Pratibha Gokhale (2010))

Thesis proposal

- Thesis proposal acts like a beacon of light and helps one to navigate through the multiple cross roads one comes across during the course of research
- Thesis proposal is generally written in the present and future tense and a thesis on the other hand is always written in past tense

Research Question

- First formulate the research question. Restate the question in the form of a statement
- State the significance of the problem
- State the purpose of the study
- Benefit of the study

Literature search

- Literature Review - Locate and briefly describe those studies that support and oppose your approach to the problem
- Hypotheses – State clearly and succinctly what you expect the results of your study to show
- Definition of Terms – Describe the exact meaning of all terms used in the problem, purpose and methodology sections

Research Methodology

- Methodology - List three research methodologies you could use and describe why each might be appropriate and feasible. Select the most viable
- Describe briefly the tools you will use for the study and why

Scope and Limitations

- Assumptions – Describe untested and untestable positions, basic values, world views, or beliefs that are assumed in your study
- Scope and Limitations – Disclose any conceptual and methodological limitations

Procedure

- Describe in detail all the steps you will carry out to choose the sample, construct variables, develop hypotheses, gather and present data
- Long range consequences – Imagine 3 years after the completion of your thesis, what are the consequences of your having done the study or not done the study

Citations

- Do not forget to give references in the text of the proposal as well as the final thesis. These should reflect exactly at the end of the articles/thesis proposal/thesis
- Besides acknowledging the authors of the papers you have consulted, It gives the indication of breadth of your reading and knowledge about the subject

Research Process : Tips

- Extensive literature search is must in any research to be carried out
- Choose the sample in a logical manner
- Design the questionnaire keeping in mind the data you need
- Do a pilot survey using the questionnaire and then revise it for the full sample

Research Process : Tips

- Before collection of data make sure that there is no ambiguity in the sample used and the relevant codes used
- Validate the data at every step
- Go back to the thesis proposal whenever in doubt

Data Analysis : Tips

- Only presenting the data collected is never enough in doctoral research
- Data has to be analysed and interpreted
- Then only the results of the research would be meaningful
- Knowledge of basic statistical concepts is a must (eg mean, median, mode)

Thesis writing : Tips

- It is best to start writing the thesis with chapter on survey of literature
- This may be followed by the chapters on Methodology, Data Collection & Analysis, Conclusions and Suggestions
- And first chapter (Introduction) is written the last as most of it would be the extended version of the thesis proposal

Major Referencing Styles

- American Chemical Society (ACS)
- American Psychological Association (APA) This is the standard style used in Psychology, but it is also widely used in other disciplines, especially in the Social Sciences
- British Medical Association (BMA)
- Chicago Manual of Style

Citation Manager

- **Citation manager helps to**
 - **Save time creating and managing the references**
 - **enter references yourself or import references from a database or catalogue**
 - **easily create a bibliography for your thesis, assignment or journal article in your preferred citation style**
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- Endnote
 - Zotero
 - Refworks
 - Jabref

Pointers to Current research

- LISA is a good starting point to know the current areas of research in the field of Library Science
- Professional organizations often post their Research Agenda on their web site
- Read the suggestions for further research at the end of most scholarly articles
- Annual conferences of professional associations like OCLC, SLA, IFLA, etc. give good idea about the research happening at international scene

Research Topics

- Study of Liscence Agreements
- Relevance of Copyright in the digital era
- Cost benefit analysis of library services
- Return on Investment (ROI) studies
- Impact of online buying (flipcart, infibeam) on library procurement

More Research Topics

- Arthur W. Hafner (2010) has compiled a list of topics on which research can be carried out. This listing is not exhaustive or complete.
- Almost all of the topics mentioned can be developed in many ways
 - 1)Advances in search engine technology and their impacts on libraries*
 - 2)Changing nature of library space requirements to meet student and collection requirements*
 - 3)Developing an annual academic agenda for the library, including benchmarks and performance measures*

Next step

- Form Collaborative Linkages
 - Collaborative research gives broader perspective
 - Publication productivity improves
 - Impact of research improves

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T h a n k y o u !