# University of Mysore
## Department of Studies in Library and Information Science
### Manasagangotri, Mysuru 570006



**Two-Day Workshop on Hypothesis Formulation and Techniques of Data Analysis:**
**A Report**
**(27th-28th January 2023)**

**Department of Studies in Library and Information Science**
**Manasagangotri, University of Mysore**
**Mysuru**

**Two-Day Workshop on Hypothesis formulation and Techniques of data analysis**
**(January 27-28, 2023)**
**Program Schedule**

| Day 1 | | 27-01-2023 Friday |
|---|---|---|
| 9.00 am to 10.00 am | | **Registration** |
| 10.30 am | Invocation | Aneesha T. Hebbar & Anannya G. S, Fine Arts College, University of Mysore |
| 10.30 am to 11.30 am | Welcome Address | Prof. N.S Harinarayana, Chairman, Department of Library and Information Science, University of Mysore |
| | About the Department | Prof. Mallinath Kumbar, Department of Library and Information Science, University of Mysore |
| | **Session 1** | |
| | Inauguration and inaugural address by | Prof. D.S. Guru, Department of Computer Science, University of Mysore |
| | Presidential address | Smt. V.R. Shylaja, Registrar, University of Mysore |
| | Vote of thanks | Prof. M. Chandrashekara, Department of Library and Information Science, University of Mysore |
| 11.30 am to 12.00 noon | | **Tea Break** |
| 12.00 noon to 1.15 pm | **Session 2** | Prof. Indira Former Professor, Department of Sociology, University of Mysore 'Tips for crafting well-supported hypotheses' |
| 1.15 pm to 2.00 pm | | **Lunch** |
| 2.00 pm to 5.00 pm | **Session 3 & 4** | Dr. Srilakshminarayana G. Associate Professor, SDMIMD Mysore 'Exploring the science of hypothesis formulation and data analysis-I' |
| **Day 2** | | **28-01-2023 Saturday** |
| 10.00 am to 1.00 pm | **Session 5 & 6** | Dr. Srilakshminarayana G. Associate Professor, SDMIMD Mysore 'Exploring the science of hypothesis formulation and data analysis-II' |
| 1.00 pm to 2.00 pm | | **Lunch** |
| 2.00 pm to 3.30 pm | **Session 7** | Dr. Manjunatha V. Assistant Professor, SBRR Mahajana First Grade College, Mysuru 'Myth Busting: Separating fact from fiction in hypothesis formulation' |
| 3.30 pm to 4.30 pm | **Session 8** | Distribution of Certificates |

Session 1: **Inaugural session**
Presidential address: **Smt. V.R. Shylaja, Registrar, University of Mysore, Mysuru**
Inaugural address: **Prof. D.S. Guru, Department of Computer Science, University of Mysore**
Date and Time: **27<sup>th</sup> January 2023, 10:30 am noon to 11.30 am**
Video link: https://youtu.be/x-yQfa2XXOU

The two-day workshop on hypothesis formulation and data analysis was a much-anticipated event in the research community in library science of the University of Mysore. Held on January 27th, 2023 at the Department of Studies in Library and Information Science, the workshop was attended by a diverse group of participants, including 39 registered attendees, faculty members, administrative staff, invitees, and masters students of Library and Information Science. The other dignitaries present for the inaugural event include Prof. K.N. Amrutesh, Dr. C.P. Ramasesh, Dr. J. Lohit and Dr. Venkatesh. The event was officially inaugurated by Prof. D.S. Guru of the Department of Studies in Computer Science, University of Mysore and was presided over by Smt. V.R. Shylaja, Registrar of the University of Mysore, Mysuru. This workshop was a great platform for knowledge sharing and networking among the participants and attendees.

Dr. Guru's inaugural speech delved deeper into the significance of hypotheses in research and how they serve as a roadmap for the entire research process. He emphasized that hypotheses are essential for guiding research and for making sense of the data collected. He also highlighted that a well-formulated hypothesis can help researchers to design their study in a more structured and efficient manner. Furthermore, Dr. Guru discussed the idea that

hypotheses can be true or false, and that the process of hypothesis testing is essentially making randomness zero. He explained that null hypotheses serve as a starting point for testing and that the rejection or acceptance of a null hypothesis is based on the evidence provided by the data.

Dr. Guru discussed the concept of cognition and recognition in relation to research, and how they play a crucial role in the research process. He explained that the process of research is not limited to just collecting and analyzing data, but also encompasses understanding and interpreting the meaning of the data. He highlighted that recognition and cognition are important aspects of research because they assist researchers in making sense of the information and in understanding the underlying meaning of the data.

Cognition refers to the mental processes involved in acquiring, processing, and understanding information. It encompasses a wide range of mental activities such as perception, attention, memory, problem-solving, and decision-making. In research, cognition plays a vital role in interpreting the data and in identifying patterns and trends. It allows researchers to make connections between different pieces of information and to understand the underlying meaning of the data. Recognition, on the other hand, is the process of identifying and interpreting patterns and familiar objects or situations. It is essential for understanding the meaning of data and for recognizing patterns and trends in the data. Recognition is crucial for researchers as it allows them to identify patterns and trends that might otherwise be overlooked.

Dr. Guru highlighted the importance of research and its role in leading to happiness. He emphasized that research is a demanding field that requires a significant amount of hard work, and that there is no substitute for hard work when it comes to achieving success in research. He stressed that research requires a 360-degree thinking approach, as well as diversified and unconditional thinking. He quoted Vivekananda's statement that individuals are the architects of their own lives, and that this applies to research as well.

Dr. Guru also identified the steps involved in research, which he referred to as the 5 As: Acquiring information, Assimilation, Aggregation, Absorption, and Adoption. He explained that the first step in research is acquiring information, which involves gathering data and facts relevant to the research topic. The second step, assimilation, involves organizing and making sense of the information acquired. The third step, aggregation, involves combining different pieces of information to form a cohesive whole. The fourth step, absorption, involves internalizing the information and understanding its meaning. And the last step, adoption, involves applying the knowledge gained through research to real-world situations. Dr. Guru also mentioned a 6th A relevant to computer scientists, which is Algorithm. He explained that the field of computer science is heavily dependent on algorithms, which are sets of instructions that tell a computer what to do. He further highlighted the importance of algorithms in the development of Artificial Intelligence (AI) technology. He said that the AI technology is developed by algorithmically converting data to information to knowledge to wisdom for the consumption of humans.

Dr. Guru also discussed the role of libraries in research during his speech. He compared libraries to the brain of a human being, describing them as a storehouse of knowledge. He emphasized that technology is not a foe but a friend to libraries, and that it can be used to enhance and beautify libraries in many different forms, including digital libraries. He explained that technology can help democratize access to information, which is in line with the fundamental principle of libraries. He said that digital libraries make it easier for people to access information and knowledge, regardless of their location or socio-economic status. By leveraging technology, libraries can expand their reach, and provide information access to a much wider audience than traditional physical libraries. Additionally, he talked about how technology allows libraries to improve the way they organize and store information, making it more easily searchable and accessible. With the help of technology, librarians can create digital catalogs and databases, which make it easier for users to find the information they need. Furthermore, technology can also be used to preserve and digitize historical and rare materials, making them accessible to researchers and the general public.

In his welcome address, Prof. N.S. Harinarayana, Chairman of the Department of Studies in Library and Information Science highlighted the importance of librarians engaging in research, particularly in the context of the rapidly evolving digital landscape. He acknowledged that libraries have evolved from traditional brick-and-mortar institutions to digital alternatives, such as Google and other massive data access technologies. However, libraries are facing a challenge of proving their relevance and sustaining their existence in the digital age. He emphasized that research is

crucial to addressing these challenges and ensuring the continued relevance of libraries. The Chairman also highlighted the contributions of Dr. S.R. Ranganathan, a pioneering figure in library science, as an inspiration for research in the field. He cited examples of how Ranganathan's research has led to the development of proximity search, faceted search, and other advanced search techniques. Furthermore, he welcomed the gathering with warmth and good wishes and urged the participants to make the most of this opportunity to learn and network. The Chairman also said that Libraries are like mothers, they are caretakers of knowledge and providing access to information, but now the libraries are being less cared like the old parents, so it is the duty of the librarians to strive hard to prove their relevance and sustain their existence in the digital age, research is the key to solve these problems.

During his speech, Prof. Mallinath Kumbar emphasized the significance of library education in India and the crucial role played by S.R. Ranganathan in its development. He provided a detailed account of the historical development of the Department of Studies in Library and Information Science at the University of Mysore in Mysuru, from its inception in 1965 to the present day. He explained that the department has offered a variety of programs throughout the years, such as PGDLAN, MIM, and MPHIL, however, these programs have been suspended for various reasons over time. Currently, the department offers a Master of Library and Information Science (MLISc) program as well as a PhD program. He also mentioned how the department has evolved over the years to meet the changing needs and demands of the library and information science field, and the efforts made to keep the curriculum up-to-date and relevant to the current industry trends. Furthermore, Prof. Mallinath Kumbar highlighted the achievements and contributions of the Department of Studies in Library and Information Science at the University of Mysore, including the research work done by its faculty and students, and how it has helped to shape the field of library education in India. He also talked about the department's collaborations with other universities and institutions, and the impact of these collaborations on the library education in India. He also urged students to take the opportunity to learn from the best and become the future leaders in the field of library and information science.

Smt. V.R. Shylaja, Registrar, University of Mysore, gave a speech in which she discussed the importance of the formulation and testing of hypotheses in the scientific and research process. She explained that hypotheses are a way of taking abstract ideas and turning them into concrete ideas that can be tested and proven through experimentation and data analysis. She stressed the importance of reading and spending time in libraries in order to properly formulate hypotheses and conduct research. To help the researchers, libraries, on the other hand, must adapt to the changing times by updating their collections, services, and technologies. This will allow them to better serve the public and provide more accessible information. She shared her own experiences visiting different types of libraries, including university, public, and local libraries, and the importance of these places in her own research and learning process. Smt. V.R. Shylaja also encouraged the students in attendance to spend more time in libraries and reading in order to improve their understanding of hypotheses and

other subjects. She highlighted the importance of hard work and dedication in achieving success in both one's career and personal life. She stated that people who are willing to put in the hard work, or "workaholics", are less likely to fail in achieving their goals. She gave examples from her own life, of how she achieved her goals through hardwork and dedication, and how it helped her in her personal and career growth.



The Two-day Workshop on Hypothesis Formulation and Techniques of Data Analysis officially begins as Prof. D.S. Guru of the Department of Studies in Computer Science and Smt. Shylaja V.R., Registrar of University of Mysore jointly light the ceremonial lamp. Also in attendance were Prof. N.S. Harinarayana, Chairman; Prof. Mallinath Kumbar, Prof. Chandrashekara, Prof. Adithya Kumari, Dr. Sunil Kumar M., Dr. Niveditha B. and a group of students from the Department of Library and Information Science.

Prof. Chandrashekara M. expressed his gratitude towards the individuals and teams who were responsible for the successful organization of the event. He acknowledged their hard work and dedication in making the event a smooth and memorable experience for all attendees. Dr. Sunil Kumar M. served as the emcee for the proceedings by skillfully guiding the audience through the program and ensuring that everything ran smoothly.



Smt. Shylaja V.R., Registrar of University of Mysore, paying floral tribute to Dr. S.R. Ranganathan, the father of library movement in India, during the Two-day Workshop on Hypothesis Formulation and Techniques of Data Analysis, in the presence of Prof. N.S. Harinarayana, Chairman; Prof. Mallinath Kumbar, Prof. Chandrashekara, Dr. Sunil Kumar M., and a few students of the Department of Library and Information Science and Prof. D.S. Guru of the Department of Studies in Computer Science.



Prof. N.S. Harinarayana, Chairman of the Department of Studies in Library and Information Science addressing the gathering during inaugural session, with Smt. Shylaja V.R., Registrar, University of Mysore, Prof. Mallinath Kumbar, Prof. Chandrashekara, Dr. Sunil Kumar M. of the Department of Library and Information Science and Prof. D.S. Guru of the Department of Studies in Computer Science in attendance.

Aneesha T. Hebbar & Anannya G. S., from University College of Fine Arts, University of Mysore, sung a soulful invocation of devotion with their rendition of 'Sharade Karunanidhe' in Hamir Kalyan Raga and Khanda Chapu Tala rhythm.



Workshop participants and faculty members of the Department of Studies in Library and Information Science, University of Mysore, Manasagangotri, Mysuru 570006, posing for a group photo.

Session 2: **Tips for Crafting Well-Stated Hypotheses**
Speaker: **Prof. Indira Ramarao, Former Professor of Sociology, University of Mysore, Mysuru**
Date and Time: **27th January 2023, 12 noon to 1.30 pm**
Video link:
https://www.youtube.com/live/y83oMPaOzBg?feature=share

Prof. Indira emphasized the importance of extensive reading as the foundation of any research project. She stated that by reading extensively in one's own field as well as in allied fields, a researcher can gain a deeper understanding of the interlinking facets of the subject. This, in turn, allows the researcher to borrow theories and models from other disciplines and apply them to their own field of study. She also highlighted the growing trend of interdisciplinary and multidisciplinary research, where knowledge and skills from different fields are integrated to address complex problems. As an example, she mentioned the field of medical sociology, which deals with the social and economic aspects of health. She also mentioned the relationship between sociology and biology as another example of interdisciplinary research. She further discussed how intersectionality framework can be used to integrate ideas from other fields into one's own field of study. Overall, Prof. Indira set the tone for the workshop by emphasizing the importance of reading and the integration of different fields of study in research.

Prof. Indira also discussed the process of formulating hypotheses, emphasizing the importance of reading literature as a crucial step in this process. She highlighted that by reading extensively in one's own field as well as in allied fields, a researcher can gain a deeper understanding of the subject and identify gaps in existing knowledge. This can lead to the development of testable hypotheses that address these gaps and contribute to the advancement of the field.

She also discussed the importance of being clear and specific when formulating hypotheses. She emphasized that hypotheses should be written in a clear and concise manner, so that they can be easily understood and tested. She also highlighted the importance of using appropriate terminology and avoiding ambiguous or vague language.

Additionally, Prof. Indira discussed the importance of critically evaluating hypotheses. She emphasized that hypotheses should be tested using appropriate methods and the results should be analyzed and interpreted carefully. She also advised to be aware of potential sources of bias and error in the research process, and take appropriate steps to control for them.

Furthermore, Prof. Indira discussed the importance of being open-minded and flexible when working with hypotheses. She highlighted that hypotheses are not always confirmed and that unexpected results can lead to the development of new hypotheses or the revision of existing ones. She also emphasized that hypotheses should be updated or modified as new information becomes available.

Prof. Indira emphasized that the formulation of hypotheses should be a natural step in the process of reading literature. She discussed the question of whether a hypothesis is an essential part of a research project, and while she opined that it is not mandatory, she also emphasized the importance of having a well-formulated hypothesis in guiding the research process. Exploratory studies, for example, may not have hypotheses, but for most research projects, a clear and testable hypothesis can provide specific directions and guidelines for the research.

She explained the difference between objectives and research questions, stating that objectives are broad guidelines that provide an overall direction for the research, while research questions are narrow and specific in nature and provide a specific focus for the research. A good hypothesis should be able to lend itself to verification, meaning it should be able to be tested and validated through the research process.

She also discussed the differences between hypotheses and theory, emphasizing that a hypothesis is a specific and testable statement, while theory is a broader and more general explanation for a phenomenon. She emphasized that a hypothesis should be context-specific, meaning it should be relevant to the specific population, group, region, or time period being studied. She advised to talk to experts, some respondents and other stakeholders before formulating hypotheses in order to gain different perspectives and insights, as this will help in creating a more accurate and relevant hypothesis.

She also gave examples from her own experience, showing that hypotheses should be group-specific, region-specific, and time-specific, among others. For example, a hypothesis about educational attainment in a specific region may not be relevant to another region with different cultural and economic conditions. Similarly, a hypothesis about a certain group of people may not be generalizable to other groups. She emphasized that by understanding the context in which a research is conducted, a researcher can develop a more relevant and useful hypothesis that can help to advance the field.

She stressed that a well-formulated hypothesis can provide a clear roadmap for the research and help the researcher stay focused on the key objectives of the study. Additionally, it can also provide a basis for testing and validation of the research findings. Furthermore, by the end of the workshop, the participants were able to understand the importance of formulating hypotheses and the role they play in the research process.

Prof. Indira also questioned the audience whether a research study can have more than one hypothesis. After a brief discussion, the

group came to the conclusion that there is an advantage to having more than one hypothesis in a research study. However, it is important to be careful when formulating multiple hypotheses to ensure that they are all testable, make sense, state a clear relationship between two or more variables, are consistent with the existing body of knowledge, facilitate data collection, allow for falsification, provide a sense of direction for the research, and meet many other criteria.

Having multiple hypotheses can provide a more comprehensive understanding of a phenomenon being studied, and allows researchers to test different aspects of the research question. It also allows researchers to triangulate data, which can help increase the validity and reliability of the study. However, it is important to keep in mind that each hypothesis must be testable and should be related to the research question.

Additionally, having multiple hypotheses can also help researchers to identify potential confounding variables that may affect the results. It also allows researchers to test alternative explanations for the results and can help researchers to identify areas where further research is needed.



Prof. Indira Ramarao, former Professor of Sociology, delivering a lecture during her session at the workshop

Sessions 3 to 6: **Exploring the science of hypothesis formulation and data analysis**
Speaker: **Dr. Srilakshminarayana G.**
Date and time: **27th January 2023, 2 pm to 5 pm and 28th January 2023, 10 am to 1 pm**
Video link: **https://youtu.be/K1Am_6ZXYN0** (for sessions 3 and 4**);**
**https://youtu.be/AlP7vjX4CZI** (for sessions 5 and 6**)**

The first session of the hands-on training program introduced participants to the Bluesky Statistics software, a widely used statistical analysis tool. Participants were taught how to navigate the software's interface, import data, and create visualizations. The session also covered the identification and mapping of variables, which is an important step in the data analysis process. Participants learned how to identify the types of variables in their data set (e.g. categorical, numerical, ordinal) and how to properly map these variables in the software.

The second session of the training program focused on different types of studies, including cross-sectional studies, time series studies, and panel studies. Cross-sectional studies involve

collecting data from a sample of individuals at a single point in time, while time series studies involve collecting data from the same individuals at multiple points in time. Panel studies involve collecting data from the same individuals over a period of time. Participants learned how to link variables in these types of studies, which can help to identify patterns and trends in the data. They were also taught how to link categorical variables to categorical variables, categorical variables to quantitative variables, and quantitative variables to quantitative variables.


Workshop attendees actively participating in hands-on training

The third session of the training program covered parametric and nonparametric statistics. Parametric statistics assume that the data follows a normal distribution, while nonparametric statistics do not make this assumption. Participants learned about different measures of central tendency, including mean (parametric) and median (nonparametric), as well as standard deviation (parametric). They also learned about bootstrapped sampling, a technique that can be used to estimate the sampling distribution of a statistic, and re-sampling techniques, which involve randomly sampling from a data set with replacement.

The final session of the training program covered statistical tests for qualitative data. Participants learned about one-sample tests, which are used to compare a sample mean to a known population mean, two-sample tests (independent and dependent), which are used to compare means between two groups, and tests for more than two samples, which are used to compare means among multiple groups. Normality tests, such as the Shapiro-Wilk test, were also covered, as well as t-tests, Kruskal-Wallis tests, Wilcoxon tests, chi-square tests, correlation tests, and regression tests. Participants were taught how to interpret p-values and conduct power analysis to determine the power of a test.
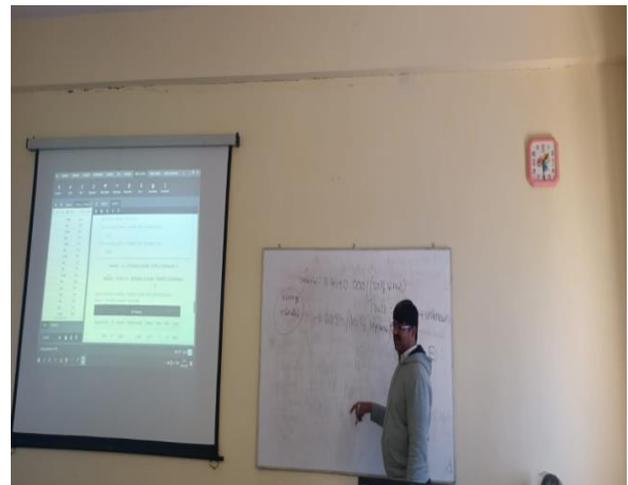

Dr. Srilakshminarayana G. providing instruction on estimation in regression analysis

The training program also covered robust tests, which are designed to be less sensitive to outliers, the difference between charter, factor, and integer variables, and the difference between confidence level and confidence interval. Chi-square tests, including chi-square tests for variance, association, goodness of fit, and difference of proportion were covered. The training also covered correlation and regression, including positive, negative, and no correlation, and spurious correlation.

Attendees of the workshop attentively listening to the lecture

Overall, the training program covered a wide range of statistical concepts and techniques, providing participants with a comprehensive understanding of the data analysis process using the Bluesky statistics software. By the end of the training, participants should have the skills to effectively analyze and interpret data using the software, which will help them to make informed decisions based on their data analysis.



A cross-section of the engaged participants listening to the resource person's presentation

Session 7: **Myth Busting: Separating the facts from fiction in hypotheses formulation**
Speaker: **Dr. Manjunatha V.**
Date and time: **28th January 2023, 2 pm to 3.30 pm**
Video link: **https://youtu.be/-6Try9BEkrw**

The last session of the workshop provided a platform for the attendees to actively engage with the resource person, Dr. Manjunatha V., in a question and answer format. He encouraged the participants to express their queries and doubts related to the theme of the workshop. The session was marked by an interactive and dynamic discussion, where the attendees were able to gain deeper insights into the subject matter. The summary given below of the Q&A session highlights the key points of the conversation and provides a glimpse of the thought-provoking interactions that took place.

1. How to write a methodology section for a thesis and an article?

When writing a methodology section, it is important to provide a clear and detailed description of the methods used in the research study. This section should include information on the research design, participants, data collection methods, and data analysis techniques. It is important to be as specific as possible and to provide enough detail so that others can replicate the study. It is also important to mention any limitations of the study.

2. In the case of delayed publication of the article, the data will completely deteriorate. In addition, a new and more advanced technology will come up that we are not able to use. Is there a need to mention the timing of data collection in the article?

It is important to mention the timing of data collection in the article as it provides context and helps others understand the relevance of the study. If the data collection was delayed, it is

important to mention this and to explain how it may have affected the results. Additionally, if new and more advanced technology has become available since the data was collected, it is important to mention this and to explain how it may have affected the study.

3. Is it possible to manipulate the data that has been sent to other publishers if the data was rejected by one publisher?

Manipulating data is not ethical and is considered a form of scientific misconduct. It is important to maintain the integrity of the data and to present it honestly and accurately. If data is rejected by one publisher, it is best to address any issues or concerns raised and to consider submitting the data to another publisher.

4. During the preparation of the questionnaire, the age factor will either be an open-ended question or not?

It depends on the specific research question and the purpose of the study. An open-ended question allows participants to provide more detailed and specific responses, but it may be less reliable and harder to analyze. A closed-ended question, such as a multiple choice question, is more specific but may not provide as much detail. It is important to choose the type of question that is most appropriate for the research question and to pilot test the questionnaire to ensure that it is effective.

5. I would like to know how many pages of a questionnaire we ought to prepare for an article and a thesis?

The number of pages of a questionnaire will depend on the specific research question and the number of questions required to answer it. A thesis may require a more comprehensive questionnaire than an article, but it ultimately depends on the scope of the study. It is

important to keep the questionnaire as concise as possible while still covering all the necessary information.

6. Is it possible to frame research questions instead of objectives in the research process?

Yes, it is possible to frame research questions instead of objectives in the research process. Research questions are more open-ended and are used to guide the research process. Objectives are more specific and are used to define the goals of the study. Both can be used in the research process, and it is important to ensure that they are clear and well-defined.



Introduction of the Workshop's resource person, Dr. Manjunatha V. of Mahajana's College (in blue shirt), by Prof. N.S. Harinarayana, Chairman of the Department of Studies in Library and Information Science

# List of participants who attended the workshop

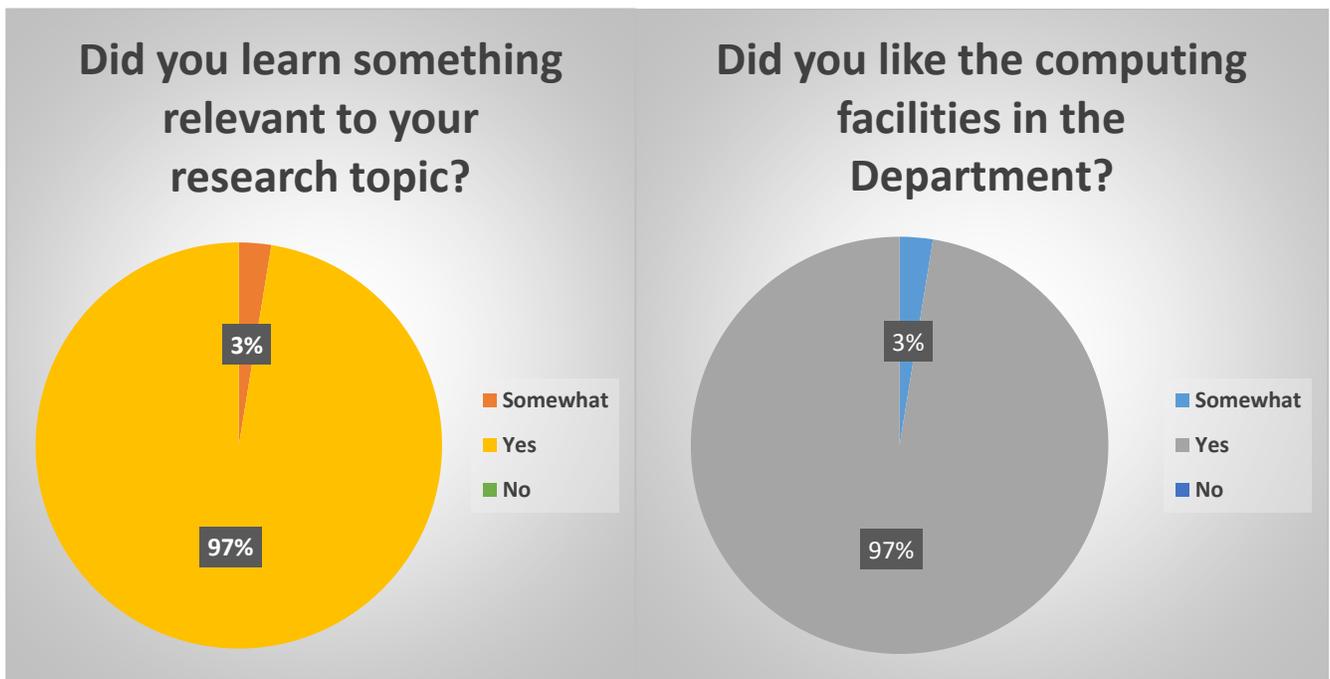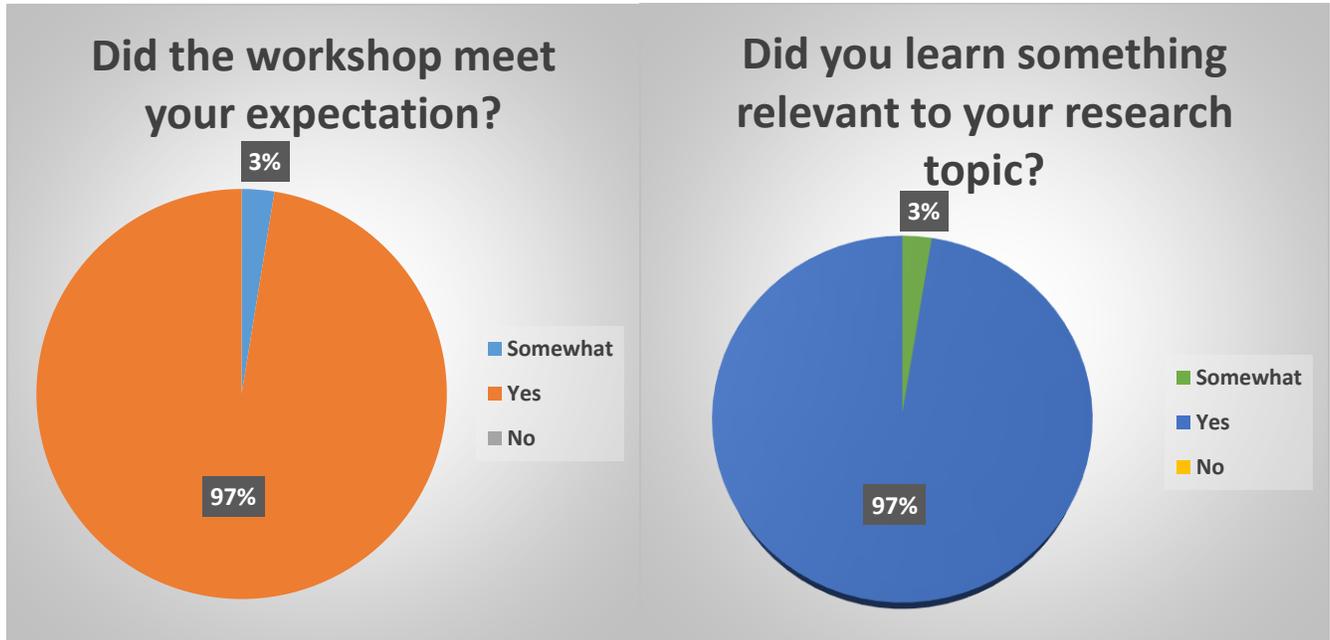| Name | Designation | Institution | Mobile Number | E-Mail ID |
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| Savitha K. | Selection Grade Librarian | Government First Grade College Bangaru Thirupathi, Kolar | 9036439163 | savithakgfgc@gmail.com |
| Shankarappa N. | Librarian | ADVS First Grade College, Sasvehalli | 9740213827 | shankrappan18@gmail.com |

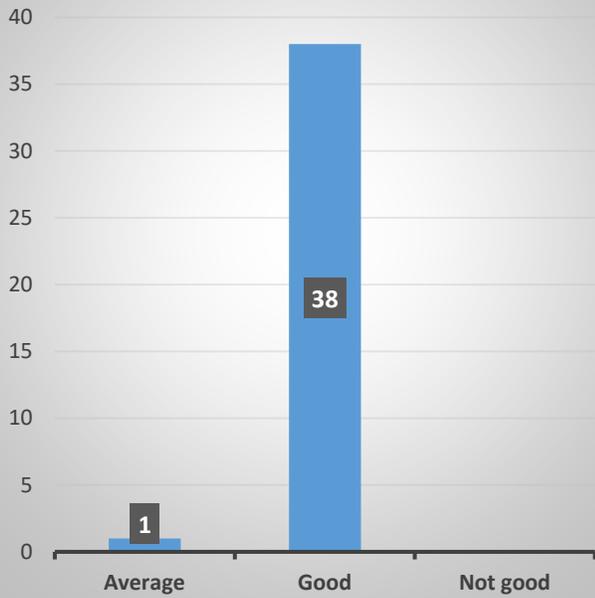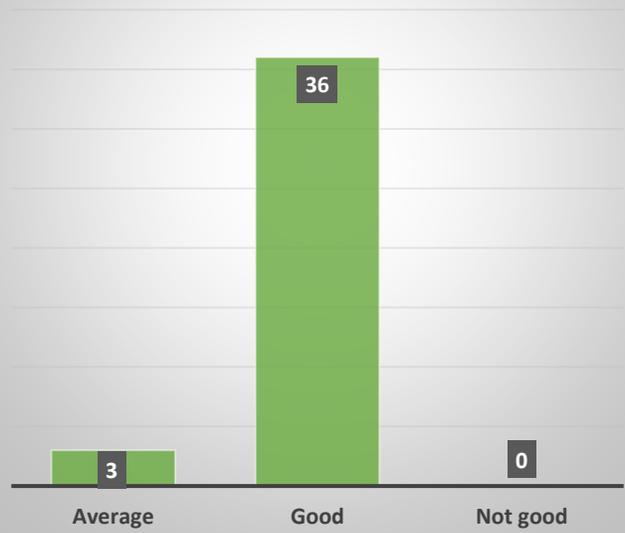| Name | Designation | Institution | Mobile Number | E-Mail ID |
|---|---|---|---|---|
| Shashikumar M. C. | Research Scholar | Department of Library and Information Science, University of Mysore, Mysuru | 8970579881 | shashimagudlu@gmail.com |
| Shiva Kumara S. U. | Librarian | BMS College of Architecture, Bengaluru | 9900870066 | su.shivakumara@gmail.com |
| Shwetha | Guest faculty | Dr. B.R. Ambedkar Post Graduate Centre, Chamarajanagar | 9611707712 | shwethanaik.naik@gmail.com |
| Srinivasa Naika | Librarian | Government First Grade College, Gundlupet | 9845824373 | srinivasanaika@gmail.com |
| Sulakshana H. V. | Librarian | JSS College of Pharmacy, Mysuru | 9901756555 | sulakshanahvs@gmail.com |
| Ushagay Marma | PG Student | Centre for Gandhian Studies | 9315304246 | ugyajaikuku21@gmail.com |
| Vasantha M. C. | Librarian | Seshadripuram Institute of Management Studies, Bengaluru | 9449775514 | vasanthamc@gmail.com |
| Veena M. | Librarian | SBRR Mahajana First Grade College, Mysuru | 9945841777 | veenam.fgc@mahajana.edu.in |
| Vijayakumar S. | Senior Assistant Librarian | Presidency University, Bengaluru | 9980352646 | vijay.sv66@gmail.com |

# Feedback from the Workshop attendees

A feedback from the participants were collected. The following is the graphical representation of the responses from the participants.



## Did the workshop meet your expectation?

3%

97%

- Somewhat
- Yes
- No

## Did you learn something relevant to your research topic?

3%

97%

- Somewhat
- Yes
- No

## Did you learn something relevant to your research topic?

3%

97%

- Somewhat
- Yes
- No

## Did you like the computing facilities in the Department?

3%

97%

- Somewhat
- Yes
- No

**Rating of the inaugural session**

| Rating | Value |
|--------|-------|
| Average | 1 |
| Good | 38 |
| Not good | |

**Rating of the session "Tips for crafting well-supported hypotheses"**

| Rating | Value |
|--------|-------|
| Average | 3 |
| Good | 36 |
| Not good | 0 |

**Rating of the session "Exploring the science of hypothesis formulation and data analysis"**

| Rating | Value |
|--------|-------|
| Not good | |
| Good | 38 |
| Average | 1 |
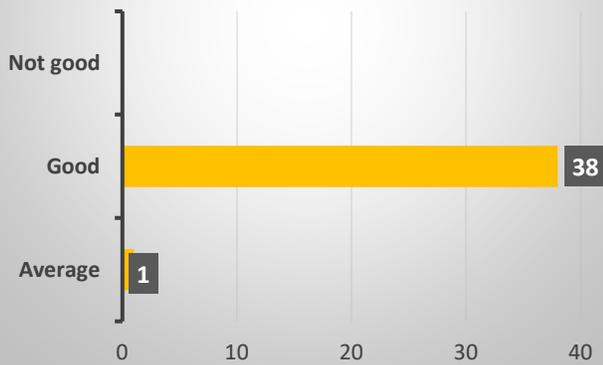
**Rating of the session "Myth busting: Separating fact from fiction in hypothesis formulation"**

| Rating | Value |
|--------|-------|
| Average | 5 |
| Good | 33 |
| Not good | 1 |
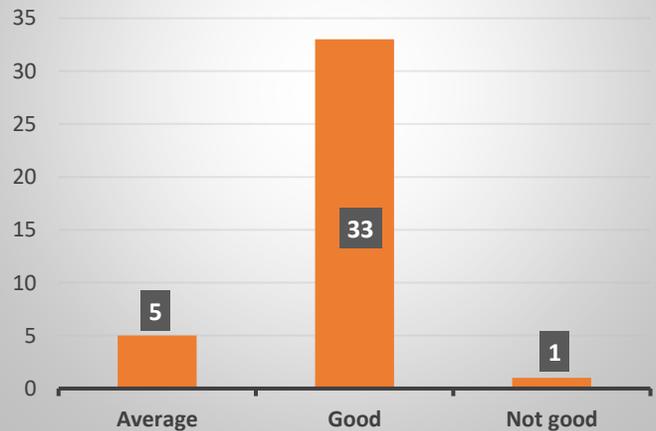
The participants have also given the most liked aspect during the academic session. The feedback from the workshop participants highlights that the hands-on sessions were the most impressive aspect of the workshop. These sessions provided a practical and application-oriented experience into research, which helped the participants understand the concepts better. The use of the Bluesky Statistical Analysis Tool for data analysis and hypothesis formulation was also a significant aspect that impressed the participants. This tool was explained in detail and demonstrated in the practical sessions, giving participants a clear understanding of the quantitative research methods and how to use the tool effectively. The participants also appreciated the sessions by Dr. Srilakshminarayana who gave an in-depth explanation of different aspects of research, such as hypothesis formulation, mapping of objectives, and quantitative research methods.

In addition to the above feedback, the attendees of the Workshop have identified the following areas as opportunities for future workshops and have requested that the department consider offering training in these subjects in the future:

1. Understanding of regression analysis and its applications in research
2. Techniques for writing research reports, including proper citation and avoiding plagiarism
3. Knowledge of research design and how to select a research topic
4. Familiarity with data analysis tools and software, such as Data Carpenter and SPSS
5. Understanding of research and publication ethics, including plagiarism prevention
6. Familiarity with research methodology and statistical tools
7. Strategies for improving writing and increasing chances of paper acceptance in international journals
8. Knowledge of current updates and developments in the LIS field
9. Hands-on training in research statistics and SPSS software
10. Understanding of research methodology and conceptual framework
11. Knowledge of institutional repositories and their role in preserving and sharing research data
12. Familiarity with LMS or CMS software used for workshop
13. Understanding of international conferences for digital resources
14. Hands-on sessions in research statistics and SPSS software
15. Literature review and finding resources on a particular subject area for research
16. Report writing skills.

# Template of the Participation Certificate
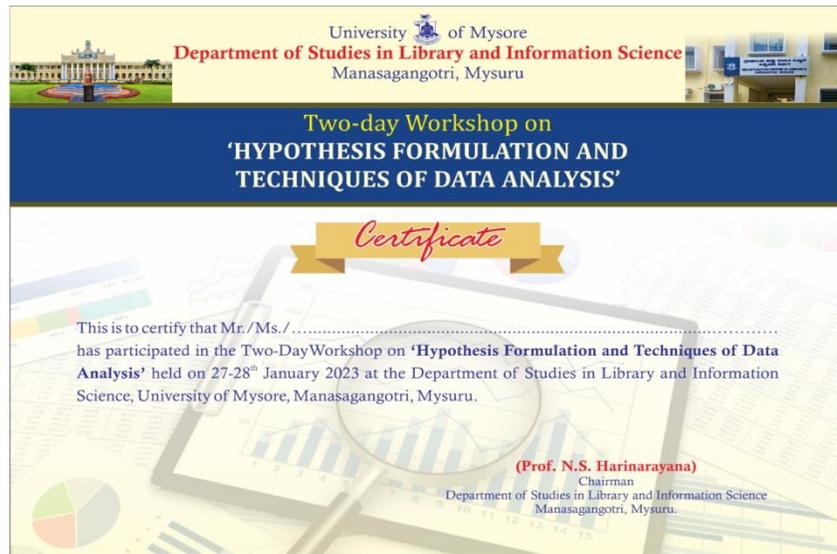


## Workshop attendees receiving their participation certificates

# 'Libraries should adapt to changing technologies'

## Workshop on 'Hypothesis formulation and techniques for data analysis'



Mysuru, Feb. 12- The two-day workshop on 'Hypothesis formulation and techniques for data analysis' was held at the Department of Studies (DoS) in Library and Information Science, University of Mysore (UoM), Manasagangothri, recently.

The workshop was officially inaugurated by Prof. D.S. Guru of the DoS in Computer Science, UoM, who discussed the significance of hypotheses in research, emphasising their importance as a roadmap for the entire research process. He discussed the concept of cognition and recognition in relation to research and how they play a crucial role in understanding and interpreting the meaning of data.

Dr. Guru also discussed the importance of research and its role in leading to happiness and the 5 'A's of research: Acquiring information, Assimilation, Aggregation, Absorption and Adoption.

He mentioned the role of libraries in research, comparing them to the brain of a human being and emphasising the importance of technology in democratising access to information and improving the way in which libraries organise & store information.

V.R. Shylaja, Registrar, UoM, in her address, emphasised the importance of reading and visiting libraries in order to conduct research and formulate hypotheses. She acknowledged that libraries need to adapt to changing times by updating their collections, services and technologies in order to better serve the public. She also encouraged students to spend more time in libraries and to read more in order to improve their understanding of hypotheses and other subjects. She highlighted the importance of hard work and dedication in achieving success in one's career and personal life and gave examples from her own life to illustrate this.

The Chairman of the DoS in Library and Information Science, Prof. N.S. Harinarayana, emphasised the importance of librarians engaging in research in the context of the rapidly evolving digital landscape. He acknowledged that libraries are facing a challenge of proving their relevance and sustaining their existence in the digital age and emphasised that research is crucial to addressing these challenges. He also highlighted the contributions of Dr. S.R. Ranganathan as an inspiration for research in the field and cited examples of how his research has led to the development of advanced search techniques.

Prof. Mallinath Kumbar spoke about the development of the DoS in Library and Information Science at the University, including the research work done by its faculty and students and how it has helped to shape the field of library education in India.

Prof. M. Chandrashekara, Prof. Adithya Kumari, Dr. M. Sunil Kumar, Dr. B. Nivedita, Dr. C.P. Ramasesh, Prof. Amrutesh, Dr. J. Lohit and Dr. Venkatesh were present among the audience.

## EVENTS TODAY (FEB. 12)

- **Sahaja Samrudha:** Roots & Tuber Mela, Nanjaraja Bahadur Choultry, up to 8 pm.
- **Silk India:** Expo-cum-Sale, Nanjaraja Bahadur Choultry, Vinoba Road, up to 8 pm.
- **Sri Ramakrishna Ashram:** Swami Mahamedhanandaji speaks on 'Satya Paripalane,' Ashram premises, Yadavagiri, 6 pm.
- **Natana School of Theatre Arts:** Staging of play 'Koneya Uttara' by Stage Bengaluru, Natana premises, Ramakrishnanagar, 6.30 pm.

## EVENTS TOMORROW (FEB. 13)

- **SDMIMD:** StartupCharcha 2023, SDMIMD auditorium, 10.30 am.
- **Sri Kalanikethana School of Art, Mysuru:** Wood Print - Painting expo - 2023, School premises, CA-15, Vijayanagar II Stage, 11.30 am to 4.30 pm.
- **Sharana Sahitya Parishat, Mysuru City Unit:** Endowment Programme, Vachana Vaachana-Vyaakhyana by students, lecture on 'Sharanara Jeevana Moulyagalu' by JSS High School HM Mohammed Anju Pasha, poet Jayappa Honnalli inaugurates, Sri Siddeshwara High School, Vijayanagar 1st Stage, 2 pm.
- **Discourse:** 'Life Hinges on 3 Relationships,' a life-transforming 120-minute discourse by Mahatria of Infinitheism, Karnataka State Open University (KSOU) Convocation Hall, Hunsur Road, 6 pm to 8 pm. [Mob: 90944-22233 or 98451-91961]