

Report on Attending Ten Days Research Methodology Workshop,

Sponsored by ICSSR

at Nirma University, Ahmedabad

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Introduction:

I had the privilege of attending a 10-day Research Workshop Methodology sponsored by ICSSR at Nirma University in Ahmedabad from September 04 – September 14, 2023. The workshop aimed to enhance my research skills and provide a comprehensive understanding of various research methodologies, data analysis techniques, and the essentials of scholarly research. This report summarizes my experiences, key takeaways, and the impact of the workshop on my research capabilities.

Workshop Overview:

The Research Methodology Workshop at Nirma University was an intensive program designed to cater to the needs of researchers seeking to refine their research skills. The workshop covered a wide range of topics in the different sessions.

Day 1 : September 04, 2023

Inaugural Session: The workshop commenced with an Inaugural Session, where we were welcomed by Prof. Udai Paliwal, the workshop director, and Dr. Sumita Shroff, the coordinator. The Director General of Nirma University also extended a warm welcome and shared insights on the workshop's structure. They outlined the daily assignments and activities that we would engage in throughout the ten-day program, as well as what to expect on the final day. With this introduction, the workshop officially began, setting the tone for the sessions to come.

Session 1 & 2

Resource Person: Prof. G. SORAL

Topic- Quantitative & Qualitative Research Design

1. **Research Design:** The workshop began with an in-depth exploration of research design, emphasizing the importance of choosing the appropriate research methods and strategies.
2. **Validity and Reliability:** How we can check the reliability and validity of the test and what are the constraints of reliability?

Session -3

Resource Person : Dr. Mitesh Pandya

Topic- Library and E-Library training Zotero

1. **Importance of Zotero -** In this session, it was taught what is the importance of Zotero in academic research and how Zotero is different from various other software.
2. **Practical Knowledge:** The resource person has also taught regarding the practical implication of Zotero in the research how it can be used to cite the work of others and also with the help of Zotero how you can write down short notes.

Day 2 : September 05, 2023

Session – 1 , 2 & 3

Resource Person: Prof. Dhaval Mehta

Topic- Sources of Data Collection, Hypothesis Testing and Formulation

1. **Data Collection Techniques:** Participants explored various data collection methods, including surveys, interviews, observations, and secondary sources. Hands-on sessions, supported by SPSS, provided practical insights.
2. **Innovative Hypothesis Formulation:** A unique four-quadrant approach was used to teach hypothesis formulation, addressing a common challenge for researchers.
3. **Hypothesis Testing:** Clear guidance was given on selecting appropriate tests based on data type, whether metric or non-metric.

4. **Practical SPSS Application:** Through hands-on exercises with diverse datasets, participants learned how to apply tests in SPSS and interpret results effectively.

Session - 4

Resource Person: Mr. Prashant Joshi

Topic: CMIE Data Collection from PROWESS- IQ

In the session on CMIE Data Collection from PROWESS-IQ, we gained insights into valuable data sources and methods:

1. **Industry Outlook:** We learned that data related to industries can be extracted, categorized, and analyzed based on different sectors. This provides a comprehensive overview of industry trends and performance.
2. **Consumer Pyramids:** The session highlighted the availability of consumer data from 2014 onwards, including information on income levels and consumption patterns among people in India. This data is invaluable for understanding consumer behavior and market dynamics.
3. **PROWESS IQ:** A significant focus of the session was on PROWESS IQ, a software containing data from over 54,000 companies. We learned how to effectively use keywords to identify and select companies for research purposes. This approach streamlines data collection, making it more efficient and less time-consuming.

Overall, this session equipped us with the knowledge and tools necessary to access and utilize data from various sources, enhancing our research capabilities and efficiency.

Day 3 : September 06, 2023

Session – 1 & 2

Resource Person: Dr. Atman Singh

Topic- Problems in Regression

1. **Hypothesis Testing and Regression:** The lecture on hypothesis testing and regression was dynamic and greatly enhanced our understanding of these complex topics. It emphasized the challenges researchers face in hypothesis testing. The session's energetic delivery and extensive coverage within a short timeframe were impressive.

2. **Multiple Linear Regression:** We learned that when utilizing the Multiple Linear Regression model, it's essential to use the Adjusted R-squared instead of the regular R-squared value. Additionally, we understood that the Ordinary Least Square Method assumes no multicollinearity among variables.
3. **Types of Data:** We gained insights into three types of data: Cross-sectional data, Time-series data, and Panel data. Cross-sectional data have a fixed time period, Time-series data have an unfixed time period, and Panel data combine elements of both time series and cross-sectional data.
4. **Auto-correlation and Durbin Watson Test:** Auto-correlation, which involves the correlation of error terms in a model, was explained. We learned about the Durbin Watson Test and its interpretation: results between 0 and 2 indicate positive auto-correlation, 2 suggests no auto-correlation, and results between 2 and 4 indicate negative correlation.

Overall, this session deepened our knowledge of regression and its practical applications in research, including the development of models using linear regression.

Session – 3

Resource Person: Dr. Mitesh Shah

Topic- Logistic Regression

1. **Logistic Regression Types:** We explored logistic regression, a valuable statistical method. When the dependent variable is non-metric, and the independent variable can be either metric or non-metric, logistic regression comes into play. In cases with more than two categorical dependent variables, multi-nomial logistic regression is employed. However, for scenarios involving only two categorical dependent variables, binomial logistic regression is the appropriate choice.
2. **Assumptions of Logistic Regression:** We delved into the key assumptions of logistic regression. These include the independence of the error term, a requirement for a relatively large sample size, the absence of perfect multicollinearity among independent variables, and the absence of the normality, linearity, and homogeneity of variance assumptions associated with traditional linear regression. Understanding these assumptions is crucial for accurate and meaningful logistic regression analysis.

Day 4 : September 07, 2023

Session – 1, 2 & 3

Resource Person: Dr. Keyur Kumar Nayak

Topic:- Use of Smart PLS for structural equation model

1. The lecture was enthusiastic and informative, expanding our knowledge of hypothesis testing in research.
2. SMART PLS software was introduced as a tool for designing structural equation models (SEMs).
3. We learned about two types of SEMs: partial least squares (PLS-SEM) and covariance-based SEM (CB-SEM) and their differences.
4. SMART PLS encompasses both the Measurement Model (outer model) and Structural Model (inner model) in SEM.
5. The outer model calculates convergent validity, item reliability (>0.708), composite reliability (>0.7), and average variance extracted (>0.5), as well as discriminant validity through cross-loading, variable correlation, and HTMT ratio.
6. The inner model estimates the coefficient of determination (R^2) and explains the role of Beta in the structural equation model.
7. This session highlighted the efficiency of designing a single model for testing hypotheses and assessing reliability.

Day 5: September 08, 2023

Session – 1, 2 & 3

Resource Person: Prof. H.K. Dangi

Topic:- Use of NVIVO for literature review , Bibliometric Analysis and Content Analysis

1. Explored the importance of qualitative data analysis and its distinctions from quantitative analysis.
2. Learned about qualitative data analysis techniques, including content analysis, sentiment analysis, and thematic analysis.
3. Discovered the utility of NVIVO software for qualitative data analysis.
4. Gained insights into creating word maps and identifying key text highlights using NVIVO.

5. Explored the systematic review of literature facilitated by NVIVO.
6. Learned how to identify variables for research through NVIVO.
7. Understood the process of identifying correlations among variables using NVIVO.

Day 6: September 09, 2023

Session – 1, 2 & 3

Resource Person: Prof. C.P. Gupta

Topic: Pooled Regression and Panel Data Using STATA

In the session on statistical analysis and regression using STATA and Excel, I learned the following:

1. **STATA Test Application:** I learned how to apply various statistical tests using STATA, with a specific focus on simple linear regression.
2. **Regression in Excel:** The session included instruction on performing regression analysis in Microsoft Excel, providing insights into conducting regression using different software applications.
3. **Statistical Terminology:** The instructor covered various statistical terms and concepts, helping us understand when to apply specific tests and analyses based on data types and research questions.
4. **Interpreting STATA Output:** We also learned how to interpret the output generated by STATA, a crucial skill for drawing meaningful conclusions from statistical analyses.
5. **STATA Commands:** An introduction to essential STATA commands commonly used in regression analysis was provided, facilitating efficient statistical research

Day 7: September 10, 2023

Field Visit:

That field trip to Ahmedabad was an incredible opportunity to connect with fellow participants from seven different states. We explored various iconic locations, including Akshardham, Gandhi Ashram, Riverfront, Adlaj Stepwell, Atal Bridge, and Tirupati Balaji Temple. Beyond the sights, the trip fostered meaningful connections and networking among us, enriching our overall experience.

Day 8 : September 11, 2023

Session –1 & 2

Resource Person: Prof. Amit Shankar

Topic: Structure of Article, Introduction, Literature Review.: This session was incredibly motivating and energizing. Prof. Amit Shankar, an editor at a prestigious journal and a professor at IIM Vishakhapatnam, provided valuable insights into structuring research articles for high-quality journal publication. Here are the key learning highlights:

1. **Title:** We learned how to craft a concise and informative title for our research articles. Prof. Amit emphasized the importance of avoiding certain words when finalizing the title.
2. **Abstract:** The abstract is akin to a movie trailer. It should be complete, starting with the research objectives, including elements of the research methodology, and summarizing the main findings and implications of the study.
3. **Introduction:** The introduction serves as the movie trailer of your research. It should include relevant citations to capture the reader's interest.
4. **Research Questions:** We gained insights into framing research questions effectively. It was emphasized that a maximum of 4-5 questions should be framed, forming the basis for defining research objectives.
5. **Review of Literature:** Prof. Amit stressed the importance of presenting the literature review in a narrative style to create an impactful and easily understandable story.
6. **Implications of the Study:** The manuscript should incorporate the practical implications of the research findings.
7. **Peer Review:** Before submission, thorough review and revision of the paper should be conducted 4-5 times to ensure its quality.
8. **Citations:** Proper and accurate citation is crucial and should be meticulously included in the manuscript.

These insights are invaluable for structuring research articles effectively and enhancing their chances of acceptance in high-quality journals.

Session –3

Resource Person : Prof. Udai Paliwal

Topic: Ethics in Academic writing , plagiarism and its prevention; citation styles

1. Ethics in Academic Writing:

- Explored the ethical responsibilities associated with academic writing, including honesty, transparency, and accuracy.
- Discussed the significance of proper attribution and respecting intellectual property.

2. Plagiarism and Its Prevention:

- Gained a comprehensive understanding of plagiarism, its forms, and consequences.
- Learned strategies to prevent plagiarism, such as proper paraphrasing and citation.

3. Citation Styles:

- Explored different citation styles, including APA, MLA, and Chicago.
- Discussed when and how to use specific citation styles in academic writing with the help of examples.

Day 8: September 12, 2023

Session –1

Resource Person: Prof. Udai Paliwal

Topic: Search Strategies for identifying the right Journal

Understanding Research Focus: The session emphasized the importance of thoroughly understanding the research focus, objectives, and scope before identifying potential journals. This clarity ensures alignment between the research and the chosen journal.

1. Utilizing Journal Databases: We learned how to effectively use journal databases and search engines like PubMed, Web of Science, and Scopus. These tools help narrow down journal options based on research topics and keywords.

2. Journal Selection Criteria: The session outlined essential criteria for selecting a journal, including the journal's reputation, impact factor, target audience, and publication timelines. We gained insights into evaluating these factors for suitability.

3. Consulting Peers and Mentors: The importance of seeking guidance from peers, mentors, or colleagues with publishing experience was highlighted. Their insights and recommendations can greatly assist in identifying the right journal.

This session provided valuable strategies for navigating the journal selection process, ensuring that our research findings reach the most appropriate and impactful audience.

Session –2

Resource Person : Dr. Sumita Shroff

Topic: Use of AI in Literature Search

In this session, we explored the impact of AI on literature search, focusing on tools like Scholarcy, Grammarly, and Monica Trink AI and many more.

1. **Scholarcy:** Impressed with its automated summarization, Scholarcy efficiently summarizes research papers, saving time and enhancing literature review efficiency.
2. **Grammarly:** As an AI writing assistant, Grammarly offers feedback on writing style, clarity, and tone beyond grammar checks. It improves research paper quality and readability.
3. **Monica Trink AI:** Known for its advanced insights and analytics, Monica Trink AI helps researchers identify emerging trends and gaps in the literature, guiding research questions and hypotheses.

Day 9: September 13, 2023

Session –1 & 2

Resource Person: Dr. Heena Thanki

Topic: : Journal Submission and review ; Importance of Revision & Responding to Reviewer's Comments ; Process of acceptance to publication

1. **Journal Submission and Review:** In our recent session, we explored the intricate process of journal submission and peer review. We learned about the significance of selecting the right journal to ensure research alignment and suitability.

2. **Importance of Revision and Responding to Reviewer's Comments:** The session emphasized the critical role of revision and addressing reviewer comments. We understood that this iterative process enhances the quality of research and increases the chances of acceptance.
3. **Peer Review Workflow:** We gained insights into the peer review workflow, from the initial submission to the evaluation by peer reviewers. Understanding the expectations and standards of reviewers is vital in this phase.
4. **Acceptance to Publication:** The session concluded by outlining the path from acceptance to publication. We learned about the final editorial steps, proofreading, and publication timelines, which are essential for successfully getting research published.
5. **Effective Communication:** A key takeaway was the importance of effective communication with editors and reviewers throughout the publication journey, which contributes to a smoother and more successful publication process.

This session equipped us with a comprehensive understanding of the journal submission and review process, highlighting the significance of revision and effective communication at every stage.

Cultural Event : During our gathering, we enjoyed various activities such as guessing songs from clips and deciphering images and movie scenes. Participants also showcased their talents with singing and poetry. Notably, students from Nirma University's Institute of Commerce dazzled us with a fantastic group dance performance, while a soulful singing act added to the event's charm.

Day - September 10, 2023

Presentation by the Participants and Final Exam: The workshop concluded with participants presenting their research paper proposals. Expert evaluators were on hand to assess our workshop achievements and provide constructive guidance on how to enhance our research for potential publication in reputable journals.

Valedictory Session: Following lunch, the valedictory session took place, during which certificates were distributed to the participants. These certificates were awarded based on the overall performance of the participants, taking into account their performance in the daily quizzes and the final presentations. Subsequently, delegates had the opportunity to provide feedback on their experience during the workshop.

Key Takeaways:

The Research Methodology Workshop at Nirma University provided valuable insights and skills that have significantly enriched my research capabilities:

1. **Enhanced Research Design:** I now have a better understanding of how to choose the most suitable research design for a given study, ensuring that my research questions are adequately addressed.
2. **Data Proficiency:** The workshop equipped me with practical skills for data collection and analysis. I gained hands-on experience with data analysis software, which will be invaluable in my future research projects.
3. **Ethical Awareness:** The emphasis on research ethics has made me more conscientious about ethical considerations in my research work, ensuring that I conduct research with the utmost integrity.
4. **Improved Literature Review:** I now have a structured approach to conducting literature reviews, enabling me to identify research gaps more effectively.
5. **Research Proposal Development:** The workshop has given me the tools to create robust research proposals, which will be instrumental in securing research funding and approvals.

Impact on My Research:

The knowledge and skills gained from the workshop have already had a positive impact on my ongoing and future research projects. I am more confident in my ability to conduct high-quality research, and I believe that the workshop has set a solid foundation for my academic and professional endeavors. Additionally, the networking opportunities provided during the workshop have opened doors to potential collaborations with fellow researchers.

Conclusion:

Attending the 10-day Research Methodology Workshop at Nirma University was a valuable and enriching experience. The knowledge, skills, and insights gained during the workshop have enhanced my research capabilities and will undoubtedly contribute to the quality of my future research work. I would like to express my gratitude to the organizers, facilitators, and fellow participants for making this workshop a successful and enlightening event.

Acknowledgments:

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PHOTO GALLERY





