

Southern Regional Centre Indian Council of Social Science Research

1. Introduction:

(1.1) The title of the course,

Seven Day Research Methodology Course on “Technology in Research for Young Researchers”

(1.2) Duration, dates and place,

Seven Days, 17th to 23rd March, 2025 at K.B.N.COLLEGE, Vijayawada.

(1.3) Purpose of the course and, a research methodology course is designed to provide students and researchers with the fundamental principles, tools, and techniques necessary for conducting effective research.

(1.3) Focus of the course.

ICSSR-sponsored research methodology courses aim to equip social science researchers with the necessary skills to conduct rigorous, relevant, and ethical research that contributes to knowledge generation and policy-making in India and beyond. Participants leave the course better prepared to navigate the complexities of research in the social sciences.

2. Selection of Participants/Resource persons

(2.1) Advertisement

The advertisement is a multi-column layout. The top left section lists the 'CHEF PATRONS' (Dr. T. Srinivasu, Secretary B, Correspondent, K.B.N. College (Autonomous) and Dr. V. Narayana Rao, A.O., S.K.P.V.V. Hindu High Schools' Committee), 'PATRON' (Dr. G. Krishnaveni, Principal), 'CONVENOR' (Dr. K. Siva Prakash Rao, Prof. Dept. of Commerce and Management), and 'Co-CONVENOR' (Sri N. Hanamthi Kumar, Head, Dept. of Commerce and Management). Below this is the 'ADVISORY COMMITTEE' with members from various institutions. The 'ORGANISING COMMITTEE' lists several faculty members from K.B.N. College. The central part of the ad features the college logo and the course title: 'ICSSR-SRC Sponsored Seven Day Research Methodology Course on "TECHNOLOGY IN RESEARCH FOR YOUNG RESEARCHERS" 17th March to 23rd March, 2025'. It also includes an 'About the College' section highlighting its history and achievements, and an 'About Department' section detailing the department's offerings. The right side of the ad contains 'Eligibility for Participation & Number Of Seats' (Faculty members and Ph.D. Scholars, maximum of 30 participants), 'Certificate of Participation' (Full Attendance is mandatory), 'Workshop Material' (Relevant literature provided), 'Important Dates' (Last date for receipt of application: 15th February, 2025; Intimation of Provisionally Selected Candidates: 28th February, 2025; Final List of Selected Candidates: 07th March, 2025), and 'Venue' (UG Seminar Hall, KBN College, Vijayawada). A QR code and a 'Click on Registration Link' button are also present.

Circulated through Social Media like Mail, Whatsapp and Facebook etc...

Date and place of advertisement,

We sent RMC Brochure 50 days before the commencement of Programme. We advertised through Whatsapp, Face Book, Research centres of all Universities and E-mail groups. We sent reminder before 10 days commencement of Programme.

Number of applications received and approved,

There are 30 participants from 10 universities have participated.

Criteria of selection,

- Candidate should be a Research Scholar
- Young Faculty can also apply
- Selection is based on First Cum First basis both Andhra Pradesh and Telangana.

Composition of selection committee

- Head of the Institution
- Academic Director
- DEAN-Commerce and Management
- Head of the Department
- Convenor of the Course

Male/Female/disability wise breakup of participants

GENDER	NO OF PARTICIPANTS	TOTAL NO OF STUDENTS
MALE	21	30
FEMALE	09	

Selection of Resource Persons

The selection of resource persons for the Research Methodology Course aims to ensure high-quality academic engagement and knowledge dissemination by inviting experts with significant contributions to research and teaching.

The Course Content and the Faculty

A brief outline of the course content

The Research Methodology Course on Technology in Research for Young Researchers provides an overview of relevant statistical techniques and its application in social science researcher.. The Young Researchers will be able to practice in packages such as SPSS and R Programming. At the end of the Course, Young Researchers are in a position to use various statistical techniques. The Course trained the Young Researchers in the following areas:

1. The Researchers are well acquainted with the Nature of Scientific Methods and its Application to Social Phenomenon.
2. The Researchers are able to conduct different researches in Historical, Analytical, Interdisciplinary, Evaluative, Participative and Action Research
3. The Researchers can select problems, formulate them and plan to write a proposal by following the Steps in the Process of Research.
4. The Researchers can formulate a Research Design with the help of Exploratory, Diagnostic, Descriptive, Experimental, Control Group and also Ex-Post Facto Research Design.
5. The Researchers can design Concepts in Quantitative Research using Variables and Attributes in their areas of research.
6. The Researchers has the knowledge of formulating hypothesis along with its testing.
7. The Researchers are in a position to conduct various Probability Sampling techniques like Simple Random Sampling, Proportionate and Disproportionate Stratified Random Sampling, Cluster Sampling, Accidental Sampling, Quota Sampling, Purposive Sampling and Snowball Sampling

8. The Researchers are provided with various tools of Data Collection like Primary & Secondary datas, preparation of Questionnaire by utilising formats like Schedules, Interview, Observation, Case Study Method, Content analysis.
9. The Researches can use various statistical tools like Measurement of Central Tendency, Dispersion, Skewness, Kurtosis, Regression and Correlation.
10. The Researchers will be in a position to write reports for their concerned Research Paper presentation.

Case studies/research papers discussed

RESEARCH PAPERS DISCUSSED BY THE RESOURCE PERSONS

S. No	Date	Session	Name of the Resource person	Title of the Paper
1	18/03/2025	2	Prof. D. SuryaChandra Rao	Investor's Perception towards Mutual Fund Study w.r.t East Godavari, A.P.
2	18/03/2025	4	Prof. V.N. Sailaja	International Association for Digital Transformation & Technological Innovation.
3	19/03/2025	2	Prof. G. Chakravarthi	Data Analytics with SPSS for Business Decision-Making.
4	19/03/2025	4	Prof. Bhushan D. Sudhakar	Transformation in Life To Bring Transformation for Future Business.
5	20/03/2025	2	Prof. Suhail Ahmad Butt	An Approach to Competitive Advantage in Banking sector by Exploring the Mediatlional Role of Loyalty.
6	20/03/2025	4	Prof. J.V. Ramana	An Empirical Study on Consumer Online Buying Behaviour.
7	21/03/2025	4	Prof. M. Babu Reddy	High Utility Item Set Mining In Transactional Data Using a Deep Learning Model.
8	22/03/2025	2	Prof. Ch. JayaSankara Prasad	Effect of Cross Shopping Behaviour on Store Format Choice in Food and Grocery Retailing.
9	22/03/2025	4	Prof. Ch. JayaSankara Prasad	Impact of Situational Factors on Retail Format choice Behaviour in Food and Grocery retailing in India.
10	23/03/2025	2	Prof. A. Srinivasa Rao	Dual Transition in Uniform LBP Matrix for Efficient Image Retrieval.

Data sources/library sources discussed

1	20/03/2025	3 rd & 4 th Sessions	Prof. J.V. Ramana
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Analytical tools discussed

1	19/03/2025	2 nd Session (Live Session on SPSS Package)	Prof. G. Chakravarthi
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Outcomes from the Research Methodology Course

This Course provided an overview of relevant statistical techniques and its application in social science researchers. The Young Researchers and Post Doctorates offered hands-on practice in packages such as SPSS and R- Programming. At the end of the Course, Young Researchers and Post Doctorates are in a position to use various statistical techniques. The Course trained the Young Researchers and Post Doctorates in the following areas:

1. **Nature of Scientific Methods** and its Application to Social Phenomenon & Nature, Importance and Scope of Research
2. **Types of Research:** Historical, Analytical, Interdisciplinary, Evaluative, Participative and Action Research
3. **Steps in the Process of Research-**Problem Selection, Formulation and Planning: How to write a Proposal
4. **Types of Research Design:** Exploratory, Diagnostic, Descriptive: Experimental; Control Group & Experimental Group; Ex-Post Facto to Research Design
5. **Concepts in Quantitative Research:** Variables, Attributes
6. **Hypotheses:** Concept & Types of Hypotheses, Formulation of Hypothesis, Testing of Hypothesis
7. **Nature & Types of Sampling:** Probability Sampling: Simple Random Sampling, Proportionate and Disproportionate Stratified Random Sampling, Cluster Sampling-Non-Probability Sampling: Accidental Sampling, Quota Sampling, Purposive Sampling, Snowball Sampling
8. **Tool of Data Collection:** Primary & Secondary Questionnaire, Types and Formats; Schedule, Interview-Observation-Case Study Method-Content analysis-Rating Scales: Osgood, Bogardus Thurston; Likert; Guttman
9. **Descriptive Statistics:** Measurement of Central Tendency, Dispersion, Skewness, Kurtosis, Regression and Correlation: Measurement of Correlation: Karl Pearson's Correlation and Rank Correlation, Statistical Inference: Point and interval estimates, Parametric and Non Parametric Test (Chi-Square, Test of Differences, Significance and Freedom)-Analysis of Variance and Co-Variance: One way and two way classification

10. **Report Writing**-References in Report Writing (Style Sheet) How to write an academic Research Paper

Detail note on practical sessions

The detailed note on practical sessions focusing on SPSS and R programming for a research methodology course tailored for young researchers.

Practical Sessions: SPSS and R Programming in Research Methodology

This section outlines the practical sessions intended for young researchers to develop competence in using SPSS and R programming for statistical analysis and research methodology. The focus will be on hands-on experience and real-world applications, crucial for conducting their own research projects.

1. Familiarize participants with SPSS and R programming environments.
2. Teach basic to advanced statistical techniques applicable in social sciences, health sciences, and other research fields.
3. Equip researchers with the skills to analyze data sets and interpret results effectively.
4. Provide insights on how to visualize data and present findings.

Structure of the Practical Sessions

Duration: 3 Sessions (1/2 hours each)

Session 1: Introduction to SPSS

- Understanding the data view and variable view
- Importing and managing data in SPSS

- Descriptive statistics: mean, median, mode, variance
- Graphical representations: histograms, box plots

- Participants will be given a sample dataset to practice importing, exploring, and generating summary statistics.

Advanced SPSS Techniques

- Hypothesis Testing
 - ❖ T-tests (independent and paired)
 - ❖ ANOVA (one-way and two-way)

Session 2: Introduction to R Programming

- Setting Up R and RStudio
 - ❖ Installation and introduction to the RStudio interface.
 - ❖ Loading datasets in R (.csv and .xlsx formats)

- Basic Data Manipulation with R
 - ❖ Using dplyr for data wrangling
 - ❖ Introduction to ggplot2 for data visualization

- Hands-on Activity

- ❖ Participants will practice manipulating and visualizing a dataset using R commands.

Session 3: Statistical Analysis in R

- Descriptive Statistics and Visualization
 - ❖ Generating summary statistics
 - ❖ Visualizing data distributions with ggplot2
- Conducting Hypothesis Tests in R
 - ❖ T-tests and ANOVA using R
 - ❖ Conducting and interpreting regression analysis
- Hands-on Activity
 - ❖ Participants will replicate analyses performed in Session 2 but using R; they will compare results and outputs.

Evaluation by Participants/Resource Persons

The Research Methodology Course on Technology in Research is designed to equip young researchers with essential skills and knowledge to effectively utilize technology in their research endeavours. The course addresses the growing importance of digital tools and methodologies in the research landscape and aims to enhance the participants' ability to conduct rigorous and innovative research.

Feedback and overall performance of the resource persons by the participants,

Course Overview:

The Research Methodology Course on Technology in Research for Young Researchers was designed to equip participants with essential skills and knowledge in modern research methodologies, emphasizing the role of technology. The course aimed to enhance the research capabilities of young researchers, providing them with tools and insights to effectively conduct research in their respective fields.

Feedback Summary:

- ✓ Participant Demographics:
- ✓ Total Participants: 30 Young Researchers
- ✓ Fields of Study: STEM, Social Sciences, Arts & Humanities

Overall Performance of Resource Persons

- ✓ **Knowledge and Expertise:**

Rating: 4.8/5

Participants were highly satisfied with the depth of knowledge demonstrated by the resource persons. They appreciated the detailed explanations of complex concepts in research methodology and technology.

✓ **Presentation Skills:**

Rating: 4.6/5

The resource persons were noted for their engaging presentation styles. Participants highlighted the use of visuals, case studies, and practical examples that made the material more relatable and easier to understand.

✓ **Approachability and Support:**

Rating: 4.7/5

Resource persons received positive feedback for their availability and willingness to assist participants with questions and concerns. Many participants noted that they felt encouraged to seek clarification and guidance.

✓ **Relevance of Course Content:**

Rating: 4.9/5

Participants felt that the course content was extremely relevant to their research needs. The integration of technology in research was particularly well-received, with many noting how it would change their approach to research methodologies.

✓ **Interactive Learning:**

Rating: 4.5/5

Interactive sessions, including group discussions and hands-on activities, were well-received, though some participants wished for more structured interaction.

Recommendations for Future Sessions:

- ✓ Consider extending Q&A or discussion periods to enhance interaction.
- ✓ Provide additional targeted workshops on specific technological tools and applications.
- ✓ Solicit participant feedback on topic selections prior to course commencement to tailor content to their interests.

(5.3) Quality and relevance of course contents

- 1: Introduction to Research Methodology
- 2: Literature Review and Research Design
- 3: Data Collection Methods
- 4: Data Analysis Techniques
- 5: Writing and Presenting Research
- 6: Ethical Considerations in Research
- 7: Case Studies and Practical Applications

(5.4) Observation/Recommendations of the Resource Person on the programme.

Observation

1. The participants were actively engaged throughout the sessions. Their enthusiasm to understand the role of technology in research methodology was evident.

2. Interactive discussions and Q&A sessions were productive, but at times the pace of the material delivery did not allow all participants to ask questions, especially those new to the topic.
3. The content on the integration of technology into research methodology was comprehensive. It provided an in-depth look at digital tools, data analysis software, and online databases that can enhance research effectiveness.
4. However, some complex topics, such as advanced statistical methods and machine learning tools, were introduced but not fully explored. Some participants may have felt overwhelmed by these topics.
5. The tools demonstrated were mostly accessible to the participants, but there were a few who faced challenges in accessing the required software or lacked adequate infrastructure to fully utilize these tools.
6. The programme could benefit from addressing these accessibility issues or recommending free, open-source alternatives for those with limited resources.
7. The course had a good balance of theoretical and practical aspects. The case studies and real-world applications discussed were relevant and helped participants connect theory to practice.
8. However, hands-on training on some software tools could have been more detailed, particularly in helping participants practice during the session.
9. The resource person demonstrated a high level of expertise and conveyed information in a clear and understandable manner. The use of real-life examples helped simplify complex topics.
10. There was a slight tendency to use jargon that may have been difficult for beginners to fully grasp. Simplifying technical terms could enhance understanding.
11. The course materials provided were rich in content, but the presentation slides were text-heavy and could have benefited from more visuals, diagrams, or infographics to support learning.
12. The supplementary reading materials were useful but might have been overwhelming for those new to the subject. Perhaps focusing on a few core resources could enhance learning without causing information overload.

Recommendations:

1. To foster a more interactive learning environment, consider incorporating more practical exercises, group discussions, and live demonstrations of tools. Participants could be divided into smaller groups for collaborative work on a research project, allowing them to implement what they've learned in real-time.
2. Review the pacing of the course, especially in terms of the complexity of the material. It would be beneficial to slow down when introducing complex concepts and allow more time for clarifications, especially for young researchers or those less familiar with certain technological tools.
3. Offering follow-up sessions or resources for deeper dives into advanced topics would also be helpful for those who wish to explore further.

4. The course should include a brief overview of free and open-source tools that can achieve similar outcomes as expensive software. This would help those who might not have access to high-end software.
5. Consider providing a technical check prior to the course to ensure that all participants have the necessary tools and systems in place.
6. Enhance the hands-on component of the course by scheduling more live sessions where participants can practice using the software or tools introduced during the course.
7. It could be beneficial to offer additional practice modules, either in-person or online, after the course for those who want more time to familiarize themselves with the tools.
8. Encourage the resource person to minimize jargon and provide clearer explanations for complex terminology, especially when addressing beginners in the field.
9. Consider having a glossary of terms provided to participants for reference throughout the course.
10. Revise the presentation materials to include more visual aids like flowcharts, diagrams, and videos that can help clarify and reinforce complex concepts.
11. Infographics summarizing key points from each session could be an effective learning aid.
12. Consider setting up a forum or follow-up sessions where participants can ask questions, share their progress, and get assistance on applying what they've learned in their own research projects.
13. This could also include an online community or mentorship program that provides continued support as participants begin to apply the technology in their research.
14. Regular formative feedback during the course could help assess participant understanding and adapt the delivery accordingly. Post-course evaluations should also be more structured to gather specific insights on what worked and what could be improved for future sessions.

Course Director's Suggestions/Recommendations

Suggestions

- **Balance Depth and Breadth:** While the course provided a comprehensive overview of technology in research, it would be beneficial to refine the curriculum by focusing more on core tools and techniques that young researchers will likely use in their daily work. The course could benefit from a tighter focus on foundational tools and methods while offering more in-depth training on a select few technologies.
- **Level of Difficulty:** Ensure that the course content is tiered to accommodate both beginner and intermediate learners. Some participants struggled to keep up with more complex topics, such as machine learning tools and advanced statistical software. A modular approach, where basic and advanced topics are introduced separately, may help to address this issue.
- **More Hands-On Learning:** Many participants expressed the need for more interactive and hands-on sessions. The course should integrate practical workshops where participants can apply

the tools and technologies they are learning about in real time. This could include practical exercises, mini-projects, or case study analysis.

- **Live Demonstrations:** Live demonstrations of the software and tools discussed during the course can ensure that participants understand how to use them effectively. It is recommended that future courses schedule more time for guided, real-time demonstrations.
- **Individualized Learning:** Given the varying levels of knowledge and experience among participants, the course could benefit from offering customized learning paths. For example, providing options for participants to focus on specific research methodologies (e.g., qualitative vs. quantitative research) or specific software/tools they wish to specialize in can cater to different needs.
- **Pre-Course Assessments:** To better tailor the content to participant needs, conducting a pre-course assessment to gauge their familiarity with technology in research could help customize the sessions accordingly.
- **Technological Access:** Addressing technological accessibility is crucial. While many participants had access to necessary tools, others struggled with inadequate infrastructure or access to paid software. Future iterations should explore providing access to free or open-source alternatives, or consider partnering with software providers to offer participants discounts or free trials.

Day Wise Photos





















