



S.E.A. COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by All India Council for Technical Education (AICTE), New Delhi, Accredited B++ by NAAC

Affiliated to Visvesvaraya Technological University (VTU), Belagavi, Recognised by Government of Karnataka

REPORT ON MANAGEMENT DEVELOPMENT PROGRAM ON RESEARCH METHODOLOGY AND DATA ANALYSIS

Date: 27th July 2024

Time: 10:30 AM - 12:30 PM

Keynote Speaker: Dr. S B Anil Kumar, Associate Professor, MBA Department, SEACET

Introduction

The Management Development Program on Research Methodology and Data Analysis, organized by MBA department

The speaker, Dr. S B Anil Kumar, aimed to enhance participants understanding of fundamental research principles and practical approaches in data handling. The session was designed to provide a comprehensive overview of research design, data collection methods, and analysis, equipping attendees with the skills necessary to undertake rigorous research.

Objectives of the Program

- To Familiarize Participants with Research Design:** Understanding the structure and components of a robust research design.
- To Explore Data Collection Methods:** Introduction to various methods for collecting qualitative and quantitative data.
- To Provide Insights into Data Analysis:** Techniques for analyzing data to derive meaningful results.
- To Discuss Research Techniques:** Different approaches to enhance research effectiveness.
- To Address Validity and Reliability:** Ensuring the credibility and accuracy of research findings.
- To Highlight Ethical Considerations:** Ensuring ethical practices in research.
- To Guide on Writing and Presenting Research:** Effective strategies for documenting and presenting research outcomes.

1. Research Design

Objective:

To introduce participants to the principles of creating a robust research design that aligns with research objectives.

Content Covered:

- Definition and Importance:** Dr. Kumar emphasized that a well-structured research design is critical for addressing research questions effectively and ensuring reliable outcomes.
- Components of Research Design:** The session covered various elements such as defining research problems, setting objectives, formulating hypotheses, and selecting appropriate research strategies.



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- **Types of Research Designs:** The discussion included exploratory, descriptive, and experimental research designs, highlighting their applications and differences.

Outcome:

Participants gained an understanding of how to formulate and implement a research design tailored to specific research questions, ensuring systematic and methodical inquiry.



2. Data Collection Methods

Objective:

To explore different methods of data collection and their appropriate use in qualitative research.

Content Covered:

- **Qualitative Methods:** Dr. Kumar focused on qualitative data collection techniques, including:
 - **Interviews:** Structured, semi-structured, and unstructured interviews.
 - **Focus Groups:** The use of group discussions to gather diverse perspectives.
 - **Observation:** Direct observation and participant observation techniques.
- **Strengths and Limitations:** Each method's strengths, such as depth and richness of data, and limitations, like potential biases and resource intensiveness, were discussed.

Outcome:

Attendees learned to select and apply appropriate data collection methods based on research objectives and the nature of the data needed.



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3. Data Analysis

Objective:

To provide insights into analyzing data effectively to derive meaningful conclusions.

Content Covered:

- **Qualitative Data Analysis:** Techniques such as thematic analysis and content analysis were explained.
- **Quantitative Data Analysis:** Introduction to statistical methods, including descriptive statistics, inferential statistics, and use of software tools for data analysis.

Outcome:

Participants acquired skills to interpret and analyze both qualitative and quantitative data, facilitating evidence-based conclusions.

4. Research Techniques

Objective:

To discuss various research techniques that support effective data gathering and analysis.

Content Covered:

- **Sampling Techniques:** Random sampling, stratified sampling, and purposive sampling.
- **Data Triangulation:** Using multiple data sources or methods to enhance research validity.
- **Survey Techniques:** Design and implementation of surveys, including questionnaire development.

Outcome:

The session equipped participants with knowledge of diverse research techniques, improving their ability to conduct comprehensive and credible research.



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5. Validity and Reliability

Objective:

To address the concepts of validity and reliability in research and their importance.

Content Covered:

- **Validity:** Types of validity (internal, external, construct, and criterion validity) and strategies to ensure it.
- **Reliability:** Methods to assess and enhance reliability, including consistency checks and test-retest methods.

Outcome:

Participants understood how to ensure their research findings are credible and reproducible by addressing issues of validity and reliability.

6. Ethical Considerations

Objective:

To highlight ethical issues in research and emphasize the importance of ethical conduct.

Content Covered:

- **Informed Consent:** The necessity of obtaining consent from participants.
- **Confidentiality:** Ensuring the privacy and confidentiality of research subjects.
- **Ethical Approval:** The process of obtaining approval from ethics committees.



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Outcome:

Attendees recognized the critical role of ethical practices in maintaining the integrity of research and ensuring the welfare of participants.

7. Writing and Presenting Research

Objective:

To guide participants in effectively communicating their research findings.

Content Covered:

- Research Writing:** Structure and components of a research report, including introduction, methodology, results, and discussion.
- Presentation Skills:** Techniques for presenting research findings clearly and engagingly, including the use of visual aids.

Outcome:

Participants developed skills in writing and presenting research findings, enabling them to convey their results effectively to diverse audiences.

Conclusion

Dr. S B Anil Kumar's session on Research Methodology and Data Analysis provided valuable insights into the research process, from design through to presentation. By covering a broad range of topics including research design, data collection and analysis, validity, reliability, ethical considerations, and effective communication, the program equipped participants with a solid foundation for conducting high-quality research.

The interactive nature of the session and the expert guidance of Dr. Kumar were instrumental in deepening participants' understanding and enhancing their research capabilities.

COs & POs Mapping

Mapped to the subject Research Methodology and IPR-22MBA23

Mapping Contents	PO1	PO2	PO3	PO4	PO5
CO1	1				2
CO2			2		
CO3				3	
CO4		2		2	
CO5	2		3		2