

**PGDRM**

## Post Graduate Diploma in Research Methodology

### 101: Research Process and Philosophical Foundations

#### Objectives:

The main objective of this paper is to give broad idea about the research process and its philosophical foundations. The overarching aim of this course is to acquire a basic knowledge of scientific paradigms and research methods. Further, the aim is to develop the student's ability to first, conduct and in written form report a scientific study, and second, to evaluate and use scientific as well as other reports.

#### Course Contents:

##### 1. Research Strategies

- Introduction
- Theory and Research
- Epistemological Considerations
- Ontological Considerations
- Research Strategy: Quantitative and Qualitative

##### 2. Research Process

- Formulating a Research Problem
- Conceptualizing a research Design
- Constructing an Instrument of Data Collection
- Selecting a Sample
- Writing a Research Proposal
- Collecting Data
- Processing Data
- Writing a Research Report

##### 3. Research Design

- The Definition of a Research Design
- The Functions of a Research Design
- Study designs based on the number of contacts
- Study design based on the Reference Period
- Study design based on the nature of Investigation
- Other designs

##### 4. Review of Literature

- Place of Literature Review in Research
- Procedure for Reviewing the Literature
- Writing up the literature Reviewed
- Avoiding Plagiarism

##### 5. Writing a Research Report

- Research writing in general

- Referencing
- Writing a bibliography
- Developing an outline
- Writing about a variable
- Getting Published
- Postmodernism and its implications for writing
- Writing Ethnography

## 6. Ethical Issues

- Introduction
- Ethical Principles
- Other ethical considerations
- The difficulties of ethical decision making

## References

1. Babbie, Earl (2010), The Practice of Social Research, 12th Edition, Cengage learning.
2. Bryman, Alan and Bell, Emma (2007), Business Research Methods, 2nd Edition.
3. Oxford University Press. Reprint 2008. Rs.395/-
4. Cooper, Donald and Schindler Pamela (2013), Business Research Methods, 2nd
5. edition, McGraw-Hill.
6. Kumar Ranjit (2011), Research Methodology: A Step by Step Guide for Beginners,
7. Pearson, 2nd Edition. Rs. 350.
8. Panneerselvam R (2004), Research Methodology, Prentice Hall of India, Eastern
9. Economy Edition.
10. Popper, K.R. (1959), The Logic of Scientific Discovery, New York, NY: Basic
11. Books.
12. Popper, K.R. (1972), Objective Knowledge, Oxford, U.K.: Clarendon.
13. Tripathi P C (2007), A Text Book of Research Methodology, 5th Edition, Sultan
14. Chand & Sons, New Delhi.

## 102: Statistical methods

### Objectives:

**Major objective of this course is to provide conceptual understanding of different statistical methods rather than algebraic calculation.**

## Course Contents:

### 1. Role of Statistics in research

- Nature of statistics
- Statistics in relation to other discipline
- Limitations of statistics

### 2. Basics of Statistics:

- Types of data: Qualitative and quantitative data, cross sectional and time series data, Different types of scales, Primary and secondary data
- Presentation of data: Construction of tables with one or factor of classification, diagrammatic presentation, frequency distribution

### 3. Descriptive Statistics:

- Role of descriptive statistics in data analysis and their application in different situations
- Measures of location: Arithmetic mean, median, mode, geometric mean, weighted mean, harmonic mean, trimmed mean., combined mean
- Measures of dispersion :Absolute and relative measures of dispersion, range, Standard deviation, coefficient of variation, variance, Interquartile range,
- Skewness, Kurtosis, outlier detection

### 4. Bivariate data analysis:

- How it differs from univariate data analysis
- Correlation: Types of correlation( Linear and non linear, simple and multiple),Assumptions required for correlation analysis with their practical implication,different methods of measuring correlation
- (Scatter plot, Pearson correlation coefficient, Spearman correlation coefficient)
- Regression : Difference between correlation and regression, Types of regression models ( Liner and non linear, Simple and multiple), Assumptions required for regression analysis with their practical implications, Logistic regression

### 5. Inferential procedures:

- Difference between descriptive statistics and inferential procedure
- Basics of probability and probability distributions: Binomial distribution, poisson distribution, Normal distribution, t-distribution
- Basic concept of Hypothesis testing : Role of probability theory in hypothesis testing, How to specify null and alternative hypothesis, Different types of errors, role of level of significance and power
- Assumptions required for parametric tests, t-test, F-test,ANOVA
- Difference between parametric and non parametric tests. Non parametric related to parametric tests

### References

1. Aczel, A D and Sounderpandian J (2002) Business Statistics, 5th Edition, Tata McGraw Hill, New Delhi
2. Levin R I and Fox (2011), Elementary Statistics, Pearson Education.

3. Levin R I and Rubin D S (1998), *Statistics for Management*, 7th Edition, Prentice Hall of India  
Nagar, A L.(1997), *Basic Statistics*, 15th Ed., Oxford University Press, Sharma, J K (2003),  
*Business Statistics*, Pearson Books
4. Wannacott and Wannacott (1972), *Introductory Statistics for Business and Economics*, John  
Weily & Sons, New York.
5. Reading list for Statistical Packages
6. Bryman A & Cramer D (2004) *Quantitative Data Analysis with SPSS 12 and 13 : A Guide for  
Social Scientists* Routledge.
7. Field A (2000) *Discovering Statistics Using SPSS for Windows : Advanced Techniques for  
Beginners*. Sage Publications.
8. Pallant J (2004) *SPSS Survival Manual*. Open University Press.

## 103: Survey Research

### Objectives:

The objective of this course is to introduce the students with different methodologies used in survey research and to make them capable of undertaking studies based on survey research methodology. By the end of this course, the students would be able to:

- Identify different methodological approaches to survey research,
- Design survey research projects,
- Discuss key issues around sampling in survey research,
- Conduct personal, telephonic and Internet-based interviews,
- Discuss ethical issues associated with conducting survey research, and
- Analyze qualitative data using appropriate statistical techniques,

### Course Contents:

#### 1. Survey Research: An Overview

- The nature of surveys
- Errors in survey research
- Respondent error
- Administrative error
- Rule-of-thumb estimates for systematic error
- What can be done to reduce survey error?
- Classification of survey research methods

#### 2. Measurement of Variables, Reliability and Validity

- What is to be measured?
- How are variables measured?
- Operational definition: dimensions and elements
- Measurement scales: nominal, ordinal, interval, ratio
- Mathematical and statistical analysis of scales
- Index measurement
- Attitude Measurement
  - 1) What is Attitude?
  - 2) Attitude and a hypothetical construct
  - 3) Physiological measures of attitude
  - 4) Attitude rating scales
  - 5) Scales measuring behavioural intentions and exceptions
  - 6) Ranking
  - 7) Sorting
  - 8) Other methods of attitude measurement
  - 9) Selecting an appropriate measurement scale
- Stability of measures
- Internal consistency of measures
- Content validity
- Criterion-related validity
- Construct validity

#### 3. Data Collection Methods, Designing Questionnaires and Interview Guides

- Selecting the appropriate survey research design
- An overview of major decisions
- What should be asked?
- Phrasing questions
- The art of asking questions
- What is the best question sequence?
- What is the best questionnaire layout?
- How much pretesting and revising are necessary?
- Errors in questionnaire design and the flow chart
- Interview techniques: choice of respondents and appropriate method of interviewing
- Telephone interviews
- Self-administered questionnaires
- Telephonic questionnaires
- Questionnaires for internet surveys
- Projective techniques and interview guides

#### **4. Sampling and Sample Size Estimation**

- Population element, population frame, sample and subject, parameters and statistics
- Probability and sampling distributions
- Reasons for sampling
- Representativeness of sample
- Probability and non-probability sampling techniques
- Sampling in cross-cultural research
- Issues in precision and determining the sample size
- Sample data, precision and confidence in estimation
- Trade-off between confidence and precision
- Sample data and hypothesis testing
- Determining the sample size
- Importance of sampling design and sample size

#### **5. Ethics in Survey Research**

- Principles of ethically acceptable research
- Informed consent
- Confidentiality, anonymity and data protection
- How to avoid harm for participants?
- Codes of ethics
- Rules of good scientific practice
- Research ethics in cases and mass research
- Research ethics in online research
- Checklist for taking ethical issues into account

#### **References:**

1. Easwaran, S., & Singh, S. J. (2006). Marketing Research: Concepts, Practices and Cases. New Delhi: Oxford University Press.
2. Flick, U. (2011). Introducing Research Methodology: A Beginner's Guide to Doing a Research Project. New Delhi: Sage Publications India Pvt Ltd.

3. Kayrooz, C., & Trevitt, C. (2006). *Research in Organizations and Communities* (First South Asian Edition ed.). Australia: Allen & Unwin.
4. Krishnaswami, K. N., Sivakumar, A. I., & Mathirajan, M. (2006). *Management Research Methodology: Integration of Principles, Methods and Techniques*. New Delhi: Pearson Education.
5. Kumar, R. (2010). *Research Methodology: A Step-by-Step Guide for Beginners* (Third ed.). New Delhi: Pearson Education.
6. Mitchell, M. L., & Jolley, J. M. (2007). *Research Design: Explained* (International ed.). CA, USA: Wadsworth Cengage Learning.
7. Nargundkar, R. (2008). *Marketing Research: Text and Cases* (Third ed.). New Delhi: Tata McGraw Hill.
8. Panneerselvam, R. (2007). *Research Methodology*. New Delhi: PHI.
9. Ramachandran, P., Yesudian, C. A. K., Thankappan, K. R., & Sankara Sarma, P. (2012). *Survey Research in Public Health*. New Delhi: Prentice-Hall India.
10. Sekaran, U. (2006). *Research Methods for Business: A Skill Building Approach* (Fourth ed.). New Delhi: Wiley India (P) Ltd.
11. Trochim, W. M. K. (2009). *Research Methods* (Second ed.). New Delhi: Biztantra.
12. Zikmund, W. G. (2009). *Business Research Methods* (Eighth ed.). New Delhi: Cengage (Thompson South-Western).

## 104: Qualitative Research

### Objectives:

The objective of this course is to introduce the students with different methodologies used in qualitative research and to make them capable of undertaking studies based on qualitative research methodology. By the end of this course, the students would be able to:

- Identify different methodological approaches to qualitative research,
- Design qualitative research projects,
- Discuss key issues around recruitment and sampling in qualitative research,
- Conduct in-depth interviews, ethnographic observations and organize focusgroups,
- Discuss ethical issues associated with conducting qualitative research,
- Analyze qualitative data using a thematic approach, and
- Identify ways in which qualitative and quantitative methodologies can be combined in research.

### Course Contents:

#### 1. Quantitative Research versus Qualitative Research

- What is Qualitative Research?
- What kind of questions and problems can be addressed with

#### Qualitative Research Methods?

- Illustrations of Qualitative Studies
- Ethical Issues in Qualitative Research

#### 2. Methodological Approaches to Qualitative Research

- Post-Positivism
- The Interpretative Strand
- The Critical Strand
- Feminism
- Sampling in Qualitative Research
- Planning Design: Defining the Scope
- Five Approaches to Qualitative Research Design: Narrative, Phenomenological, Grounded Theory, Ethnographic and Case Study Approaches

### 3. In-depth Interview

- What is in-depth Interview?
- When is it appropriate to use In-depth Interview Method?
- Purpose of In-depth Interview
- Data Collection Techniques in In-depth Interviewing
- Developing the Interview Guide
- Subjectivity in In-depth Interview
- Practical Aspects of Conducting In-depth Interview
- Pros and Cons of In-depth Interview

### 4. Oral History

- What is Oral History?
- How is Oral History different from In-depth Interviewing?
- Data Collection Techniques in Oral History
- Issues of Collaboration and Authority in Oral History

### 5. Focus Group Discussion (FGD)

- What is a Focus Group Discussion?
- When is it appropriate to use Focus Group Discussion Method?
- Purpose of Focus Group Discussion
- Data Collection Techniques in Focus Group Discussion
- Developing the Discussion Guide
- Group Composition, Group Size and Location
- Practical Aspects of Conducting Focus Group Discussion
- Pros and Cons of Focus Group Discussion

### 6. Observation

- What is Observation?
- When to conduct Observation?
- What to observe?
- Types of Observation
- Conduct of Observation

### 7. Ethnography

- What is Ehtnography?
- What is Autoethnography?
- What is Microethnography?
- Role of Ethnographers
- Sampling in Ethnography
- Collecting and Managing Ethnographic Data
- Field Notes in Ethnography
- Feminist Ethnography

## 8. Content Analysis

- What is Content Analysis?
- Main Approaches to Content Analysis: Post-Modern and Post-Structural
- Visual Research: Photographs and Interactive Visual Research
- Coding Advertisements
- Audio-Visual Analysis
- Content Analysis using Software

## 9. Case Study

- What is a Case Study?
- Designing a Case Study Research
- Multiple Case Study

## 10. Analysis and Interpretation of Qualitative Data

- Steps involved in Qualitative Data Analysis and Interpretation
- Introduction to Transcription Software for Qualitative Data Analysis
- Grounded Theory Approach
- Writing Memos
- Analysis, Interpretation and Representation of In-depth Interview data
- Analysis, Interpretation and Representation of Focus Group Discussion

### Data References:

- 1) Barbour, R. (2007). *Doing Focus Groups*. New Delhi: Sage Publications India Pvt Ltd.
- 2) Birks, M., & Mills, J. (2011). *Grounded theory: A Practical Guide*. New Delhi: Sage Publications India Pvt Ltd.
- 3) Bryman, A. (2009). *Social Research Methods (Third ed.)*. New Delhi: Oxford University Press.
- 4) Bryman, A., & Bell, E. (2007). *Business Research Methods (Second ed.)*. New Delhi: Oxford University Press.
- 5) Butler-Kisber, L. (2010). *Qualitative Inquiry: Thematic, Narrative and Arts-Informed Perspectives*. New Delhi: Sage Publications India Pvt Ltd.
- 6) Creswell, J. (2013). *Qualitative Inquiry and Research Design: Choosing Among the Five Approaches*. New Delhi: Sage Publications Pvt Ltd.
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- 8) Flick, U. (2009). *An Introduction to Qualitative Research (Fourth ed.)*. New Delhi: Sage Publications India Pvt Ltd.
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- 12) Hennik, M., Hutter, I., & Bailey, A. (2011). *Qualitative Research Methods*. New Delhi: Sage Publications India Pvt Ltd.
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- 14) Liamputtong, P. (2011). *Focus Group Methodology: Principles and Practice*. New Delhi: Sage Publications India Pvt Ltd.

- 15) Maxwell, J. A. (2013). *Qualitative Research Design: An Interactive Approach* (Third ed.). New Delhi: Sage Publications India Pvt Ltd.
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- 17) Mertler, C. A. (2009). *Action Research: Teachers as Researchers in the Classroom* (Second ed.). New Delhi: Sage Publications India Pvt Ltd.
- 18) Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods*. New Delhi: Sage Publications India Pvt Ltd.
- 19) Richards, L., & Morse, J. M. (2013). *Readme First for A User's Guide to Qualitative Methods* (Third ed.). New Delhi: Sage Publications India Pvt Ltd.
- 20) Saldana, J. (2013). *The Coding Manual for Qualitative Researchers* (Second ed.) New Delhi: Sage Publications Pvt Ltd.
- 21) Silverman, D. (2010). *Doing Qualitative Research* (Third ed.). New Delhi: Sage Publications India Pvt Ltd.
- 22) Silverman, D. (2011). *Qualitative Reserach: Issues of Theory, Method and Practice* (Third ed.). New Delhi: Sage Publications India Pvt Ltd.
- 23) Yin, R. K. (2009). *Case Study Research: Design and Methods* (Vol. 5). New Delhi: Sage Publications India Pvt Ltd.

### 105: Indian Statistics

#### Objective:

**The main objective of this paper is to give exposure to the sources of database of statistics on different aspects of Indian Economy. The course will also focus on the methodology of data collections and its limitations. At the end of the course the student will learn about the different sources of statistics on Indian Economy and also learn the limitations of the published data.**

#### Course Contents:

1. Income estimation
2. Price indices
3. Employment / Unemployment
4. Trade statistics
5. Agricultural statistics
6. Industrial statistics
7. Statistics on demography
8. Statistics on infrastructure
9. House hold expenditure
10. Managerial computing

## References:

Ministry of Statistics and Programme Implementation, Government of India, Report of Indian Statistical Commission, Sept 5, 2001, URL:  
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## Dissertation

**The dissertation offers the student full opportunity to utilize and demonstrate his/her abilities and skills in social science research. As part of the course requirements, students are required to undertake a field/empirical research project. They are required to present a brief research proposal in the class before commencing work on the same. Each student will be supervised by the faculty member of the Department of Research Methodology and other faculty members of the University.**

**Note: The students will have to demonstrate their competence in any one of following statistical packages:**

1. SPSS
2. E-Views
3. Gretl
4. R
5. Minitab
6. SAS
7. STATA
8. SYSTAT

## References

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4. Buckley, Joanne (2004), Fit to Print. Toronto: Harcourt Brace Jovanovich.
5. Carney, Tom and Barbara Carney (1988) Liberation Learning: Self-Directed Learning for Students. Windsor, Ontario : Para-Publishing Enterprises.
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