**14. LABOUR RESEARCH AND STATISTICS**

**Labour Research**

Nature and Significance of Labour Studies ; Objectives of Labour Research; Labour Research and Social Research; Labour Research in Industrially Advanced and Developing Countries; Labour Research in India-Purpose, Progress, Difficulties, Limitations; Application of Research Findings to Labour Policy Formulation-An Evaluation.

**Research Methodology**

Basic Elements of Scientific Method; Knowledge and Reality; Language and Meaning; Logic and Objectivity; Concept and Propositions; Scientific Thinking and Scientific Procedures; causality, Truth and Probability: Value Judgments; Application of Scientific Method for Studying Social Phenomenon-Difficulties and Limitations; Inter-Disciplinary Approach to Social Labour Research.

**Scientific Investigation and Methods**

Scientific Approach to Behaviour Investigation; Inquiry Process-Goals, Context of Discovery; a Human Equation; Research-Historical, Descriptive, analytical; Census, Survey, Field Investigation, Case-study: ' Breadth ' and ' Depth ' Studies.

**Empirical Research**

Criteria and limitation; Trend Studies; Panel Analysis; Prediction Studies; Problems of Classification and Comparison, Criticism and Evaluation.

**Survey Methods**

Purpose, Subject-Matter and Coverage of Survey; Types of Surveys; Sources of Data; Preliminary Study; Main Problem Protesting and Probability Sampling: Sampling Techniques - Random, Stratified, multiphase and Quota Sampling; Minimising ' Bias' by the use of Verification, Statistical Testing for Internal Verification and Assessment of Plausibility.

**Planning a Social Survey**

Selection and Formulation of a Research Problem; Development of a Hypothesis; Research Design; Pre-testing and Pilot Surveys; Sources of Data and their Evaluation: Methods of Data Collection; Processing of Data; Report-Writing.

**Methods of Data Collection**

Principles, Problems and Procedures; Documents and Records, their Adequacy and Reliability; Schedule, Questionnaire-mailed questionnaire, problems of Non-Response; Interview-Formative, Non-Directive, Focused and Informal Inter-views: Mass Interview; Interviewer and Respondent; Construction of questionnaire and Interview Schedules: Observation- -Importance of First-Hand Observation; Observation and values; Selection of Phenomenon; Objectivity in Observation-Difficulties and Limitations; Observation of Group Behaviour; Experimental Method and its Scope; Experimental design; Field and laboratory experiments; Experiment in time; Simultation and its use in Data Collection.

**Measurement and Scaling**

Principles and Strategy; Nominal and Ordinal-Scales, Interval and Ratio Scales.

**Analysis and Processing of Data**

Qualitative Analysis: Interpretation and Presentation of Data; Principles of Statistical Decision-Making; Sampling, Testing and Degree of Association: Multivariate Analysis; Editing, Coding and Tabulation of Data.

**Drafting of Report**

Scheme of Report, Chapters and Contents; Footnotes, Annexures, 'Appendix, Bibliography, Index etc.

**Statistical Methods**

Frequency Distribution; Measures of Central Tendency and Variability; Measures of Dispersion: Percentiles, Ogive, Graphic Presentation of Data; Normal Probability Curve; Testing Experimental Hypothesis: Correlation; Measures of Significance Tests for Ranked Data; Statistical Inference and Association.

**Labour Statistics**

Statistics Relating to Labour Force, Employments, Wages and Earnings Trade Unions, Work Stoppages and Industrial Disputes, Industrial Accidents, Absenteeism and Labour Turnover, Social Security, Production and Productivity; Consumer Price Index Numbers- Theory, Practice, Policy and Implementation-Implications for Labour.

**Labour Research**

Problems and Perspective--Expanding Areas in Labour Research; Methodological Aspects of Labour Research; Application of Statistical Methods to Social Science Research; Utility of Labour Research Cost Benefit Analysis; Co-ordination of Research Agencies in the Labour Field; International Aspects of Labour Research in India; Labour Research- a Perspective.