



Kadi Sarva VishwaVidyalaya
Gandhinagar

PH.D. COURSEWORK

For

**FACULTY OF
EDUCATION**

Year: 2024-'25 onwards

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RESEARCH METHODOLOGY (R.M.) IN EDUCATION

Syllabus-2024

Credit-4

Marks-100

Unit-1 Introduction to Educational Research

(25%)

- 1.1 Nature, Meaning, Characteristics of Research and Educational Research
- 1.2 Purpose of Research: Basic or Fundamental, Applied and Action Research
- 1.3 Areas of Educational Research: Conceptual understanding of Problems related to Content, Different Stages and Sectors of Education and Teaching process, Educational Philosophy, Educational Sociology, Educational Psychology, Educational Technology, Measurement and Evaluation
- 1.4 Steps in Research process and Preparation of Research Proposal
- 1.5 Selection of the Problem, Definition and Statement of the Problem, Evaluation of the Problem, Criteria and sources for identifying the problem
- 1.6 Variables-Dependent, Independent, Intervening, Control, Moderate
- 1.7 Writing Objectives & Hypotheses: Nature, Definition and Characteristics of Good Hypothesis, Various types of hypotheses

Unit-2 Methodology of Research

(30%)

- 2.1 Concept of Population, Universe and Sample, Characteristics of a Good Sample, Non Probability Sampling, Probability Sampling, Methods of Sampling: Random, Stratified, Purposive, Cluster and Quota Sampling, Sampling Errors and how to reduce them
- 2.2 Research Methods: Descriptive Research, Historical Method, Survey Method, Ex post Facto Research, Developmental Research, Experimental and Quasi Experimental Research, Designs of experimental research, characteristics, Internal and external validity in experimental research
- 2.3 Concept of Qualitative Research
- 2.4 Mix Methodological Approach

Unit-3 Tools, Data Analysis and Presentation

(30%)

- 3.1 Tool Construction: Concept, types, forms, preparation (Construction), characteristics, Validity, Reliability of the following tools: Questionnaire, Opinionnaire, Interview Schedule, Observation Sheet, Rating Scale, Attitude Scale, Standardized Test
- 3.2 Descriptive Statistics: Characteristics of Normal Probability Curve (NPC),

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Measures of Central Tendency, Measures of Variability, Normality, Measures of Relative Position and Correlation

3.3 Parametric Techniques: Assumptions to use parametric test, Level of Significance, Types of Errors, Two Tailed and One Tailed Tests of Significance, Degree of Freedom, Different types of Parametric Techniques (Only Concept, no calculation should be asked)

3.4 Non Parametric Techniques: Different types of Non-Parametric Techniques (Only Concept, no calculation should be asked)

3.5 Concept of Descriptive and Inferential Analysis

3.6 Organization and Graphical Representation of Data: Drawing up a Frequency Distribution

3.7 Graphical Representation of Data: Pie Chart, Bar Chart, Frequency Polygon, Histogram or Column Diagram, Ogive

Unit-4 Research Report Writing and Ethics

(15%)

4.1 General and Essential Considerations Format of Thesis/Dissertation

4.2 Quotations, Endnotes, Bibliography, Appendices

4.3 Table and Graphs, Style of Presentation

4.4 Research and Publication Ethics, Plagiarism

4.5 Probable errors aroused while report writing

4.6 American Psychological Association (APA) Style of writing

4.7 Points to be covered in the Research Synopsis