

# **Savitribai Phule Pune University**

(formerly University of Pune)

## **Syllabus for M.Phil./Ph.D. (PET) Entrance Exam : Education**

### **Research Methodology**

#### **1. Fundamentals of Research**

- a. Meaning, Nature, Characteristics, Need and Scope of research in the field of Education/ Physical Education.
- b. Distinction between Research, Invention and Discovery
- c. Scientific inquiry and theory development
- d. Source of knowledge
- e. Interdisciplinary in research : need and importance

#### **2. Types and Methods of Educational Research**

- a) Types: Fundamental, Applied, Action research
- b) Research Methods:
  - Historical: Sources of data, internal and external validity
  - Descriptive: Surveys, Case Study, developmental, co- relational and ex-post-facto research
  - Experimental: research designs - pre, quasi and true experimental researches, internal and external validity of the experiment
  - Multimethod Research
- c) Qualitative Research : Need and importance, Characteristics, Difference between Qualitative and Quantitative Research

### **3. Research Problem, Variables, Hypothesis Population and Sampling**

- a) Selection and finalization of research problem, Operational/dictionary/conceptual definitions
- b) Review of related literature
  - Sources (Data Bases)
  - Searching (Use of technology)
  - Review writing
- c) Variables: Concept, Nature, Characteristics and Types
- d) Hypothesis: Concept, Characteristics and Forms, hypothesis testing
- e) Assumptions: Meaning and Role
- f) Population: Concept
- g) Sampling and Sample: Need of Sampling, Probability and non-Probability
- h) based sampling, characteristics of good sample, errors in sampling

### **4. Data Collection tools/techniques:**

1. Questionnaire
2. Interview
3. Observation
4. Psychological tests
5. e-tools

Qualities of good data collection tools.

### **5. Data Analysis and interpretation**

- a) Scales of Measurement
- b) Measures of central tendency and variability
- c) Measures of relative positions: Deciles, Percentiles, Percentile rank and standard scores
- d) Correlation - Concept, types and uses
- e) Concepts of: Parameter and statistic, Type I and Type II errors, Degrees of Freedom, Confidence limits and intervals, Parametric and non-Parametric tests
- f) t- test, F test, Chi-Square test

## **6. Report writing and other**

- a) Format of research report
- b) Characteristics of good research report
- c) Research ethics
- d) Plagiarism, Citation guidelines
- e) Use of computers in various phases of research

# **Subject Concerned Syllabus Education**

## **I. Philosophical Foundation of Education**

Relationship of Education and Philosophy

Western Schools of Philosophy : Idealism, Realism, Naturalism, Pragmatism, Existentialism, Marxism with special reference to the concepts of knowledge, reality and values their educational implications for aims, contents and methods of education.

Indian Schools of Philosophy (Sankhya, Vedanta, Buddhism, Jainism, Islamic traditions) with special reference to the concept Of knowledge, reality and values and their educational implications Contributions of Vivekananda, Tagore, Gandhi and Aurobindo to educational thinking National values as enshrined in the Indian Constitution, and their educational implications

Modern concept of Philosophy : Analysis—Logical analysis, Logical empiricism and Positive relativism -( Morris L.Prigge)

## **Sociological Foundations of Education :**

- Relationship of Sociology and Education
- Meaning and nature of Educational sociology and Sociology of education
- Education- as a social sub-system—specific characteristics
- Education and the home

- Education and the community with special reference to Indian society
- Education and modernization
- Education and politics
- Education and religion
- Education and culture
- Education and democracy
- Socialization of the child
- Meaning and nature of social change
- Education as related to social stratification and social mobility
- Education as related to social equity and equality of educational opportunities
- Constraints on social change in India (caste, ethnicity, class, language, religion, regionalism)
- Education of the socially and economically disadvantaged sections of the society with special reference to scheduled castes and scheduled castes, women and rural population

**2. Meaning and nature,** Education and Social change, constraints on social change (caste, ethnicity, class, language, religion, population and regionalism)

Education as related to social equity and equality of educational opportunities. Education of socially and economically disadvantaged section of society with special reference to scheduled castes and scheduled tribes, women and rural population

### **3. Psychological Foundations of Education**

Relationship of Education and Psychology

Process of Growth and Development

— Physical, social, emotional and intellectual

—development of concept formation, logical reasoning, problem solving and creative thinking; language development

— individual differences---determinants; role of heredity an environment; implications of individual differences for organizing educational . progammes

Intelligence—its theories and measurement

Learning and Motivation

Theories of learning—Thorndike is connectionism; Pavlov's classical and Skinner's operant conditioning; Learning by insight; Hull's reinforcement theory and Tolman's theory of learning; Lewin's-Field theory

- hierarchy of learning
- Factors influencing learning
- Learning and motivation
- Transfer of learning and its theories

Psychology and education of exceptional children—creative, gifted. backward, learning disables and mentally retarded .

Personality—type and & trait theories—measurement of personality

Mental health and hygiene—process of adjustment. conflicts and defence mechanism, mental hygiene and mental health. Sex Education Guidance

#### **4. Concept and principles of guidance and counseling, types of guidance and counselling**

Tools and Techniques of Guidance—records. scales and tests, techniques. interview

Organizing Guidance services at different levels of education, occupational information, kinds of services, like information, testing, counselling and Follow -up.

#### **5. Universalization of elementary education in India**

Vocationalization of education in USA and India

Educational administration in USA, UK (Britain and Ireland) and India

Distance education and continuing education in Australia, UK and India.

## **6. Construction and Development of Curriculum**

- different models
- administrative
- grass root
- demonstration
- system analysis

### **Curriculum Evaluation**

- formative
- summative
- interpretation of evaluation results

## **7. Development of Modern Concept of Educational Administration from 1900 to Present-day**

- Taylorism
- Administration as a process
- Administration as a bureaucracy
- Human Relations Approach to Administration

Meeting the Psychological needs of employees, systems approach specific trends in Educational Administration as (a) Decision making, (b) Organizational Compliance, (c) Organizational Development, (d) PERT, (e) Modern Trends in Educational Management.

### **Leadership in Educational Administration :**

- Meaning and Nature of Leadership
- Theories of Leadership
- Styles of Leadership
- Measurements of Leadership

### **Educational Planning .**

- Meaning and Nature
- Approaches to Educational Planning

## Perspective Planning Instructional Planning .

### Educational

Supervision : .

Meaning and

Nature

Supervision as service activity

Supervision as a process .

Supervision as functions

Supervision educational leadership

Modern supervision

Functions of supervision

Planning the supervisory programme

Organizing supervisory programme

Implementing supervisory programme

## **8. Educational Measurement and Evaluation concept, scope, need and relevance**

Tools of measurement and evaluation subjective and objective tools. essay test, objective test, scales, questionnaires, schedules, inventories, performance tests.

Characteristics of a good measuring instrument :

Validity

Reliability

Norms

Usability, etc. .

Test standardization .

Norm-referenced and criterion-referenced tests. scaling-standard scores.

T-scores and C-scores

Steps in the standardization of a test

Measurement of achievement, aptitudes, intelligence, attitudes, interests and skills.

Interpretation of test-scores and methods of feedback to students

New trends :

Grading, semester, continuous internal assessment, question bank, uses of computer in evaluation, qualitative analysis

## 9. Meaning and Scope of Educational Technology

— educational technology as systems approach to education

— systems approach in educational technology and its characteristics

— components of educational technology, software, hardware

Multi-media approach in Educational Technology

Modalities of Teaching—difference between teaching and instruction, conditioning and training

Stages of teaching—pre-active, interactive and post-active.

Teaching at different levels—memory, understanding and reflective.

Modification of teaching behaviour : Microteaching, Flander's Interaction Analysis, simulation.

Programmed Instruction (origin, types, linear and branching, development of programmed instruction material—linear /branching model, teaching machines. computer assisted instruction

Models of Teaching : Concept, different families of teaching

models Designing Instructional System.

— formulation of instructional objectives

— task analysis.

— designing of instructional strategies, such as lecture,



team teaching, discussion, panel discussion, seminars and tutorials

Communication Process : Concept of communication, Principles, Modes and Barriers of communication, Classroom communication (interaction verbal and non-verbal)

Distance Education : Concept, Different contemporary systems, viz., Correspondence, Distance and open; Student support services; Evaluation Strategies in Distance Education; Counselling Methods in Distance Education

Development of Evaluation Tools—Norm-referenced and criterion-referenced tests

#### **10. Concept and nature of special education**

- objectives

- types

- historical perspective

- integrated education

Education of Mentally Retarded

- characteristics of the retarded

- educable mentally retarded

- teaching strategies

- enrichment programmes

- remedial programmes

- etiology and prevention

- mental hygiene as remediation

Education of the visually impaired :

- characteristics

- degree of impairment

- etiology and prevention

- educational programmes

Education of the Hearing Impaired

- characteristics

- degree of impairment

- etiology and prevention
- educational programmes

#### Education of the Orthopaedically Handicapped

- Types of handicap
- characteristics
- educational programmes

#### Education of the Gifted and Creative Children

- characteristics
- creativity and identification process
- educational programmes

#### Learning Disabled Children

- characteristics
- identification
- educational programme

#### Education of Juvenile Delinquents

- characteristics
- problems of alcoholion, drug adiction
- anti-social and character disorder
- educational progammes for Rehabilitation

### **11. Teacher Education** : Historical perspective Recommendations Of various commissions on teacher education; Kothari Commission.

#### National Policy on Education

#### Aims and objectives of teacher education at—

- elementary level
- secondary level
- college level

#### Teaching as a Profession :

Professional organizations for various levels of teachers and their role;

performance appraisal of teachers

Faculty improvement programme for teacher education

Types of teacher education programmes and agencies :

Inservice teacher education

Preservice teacher education

Distance education and teacher education

Orientation and refresher courses

.Current Problems .

Teacher education and practicing schools

Teacher education and other institutions

Preparing teachers for special schools

Implementation Of curricula of teacher education.

Areas of Research .

Teaching effectiveness

Criteria of admission.

Modification of teacher behaviour

School effectiveness