

Gautam Buddha University, Greater Noida

Syllabus for Entrance Examination (GBU-ET) for Ph.D. (Education) of Research Methodology

1. NATURE AND SCOPE OF EDUCATIONAL RESEARCH

- Scientific inquiry, scientific method, nature and sources of knowledge.
- Meaning, Nature, Need and Scope of Educational Research.
- Fundamental, Applied and Action Research.
- Some emerging trends in educational research.

2. FORMULATION OF RESEARCH PROBLEM

- Criteria and Sources for indentifying research problem.
- Delineating and operationalising variables.
- Review of Related Literature: Importance and various sources including internet.
- Hypothesis: Concept, characteristics of a good hypothesis, sources and types of hypothesis.

3. SAMPLING

- Concept of population and sample
- Steps and characteristics of a good sample
- Sampling errors and how to reduce them
- Various methods of sampling: Probability and non-probability

4. TOOLS AND TECHNIQUES

- Characteristics of a good research tool
- Types, characteristics and uses of research tools: Questionnaire, Interview, Observation
- Nature of educational data, Scales of measurement
- Measures of Central Tendency: Mean, Median and Mode
- Measures of Dispersion: Range, Quartile Deviation, Average Deviation, Standard Deviation.
- Measures of Relative Position: Percentiles and Percentile Ranks

5. MAJOR APPROACHES TO RESEARCH

- Descriptive research, Ex-post facto research
- Historical research
- Experimental research: Experimental Designs
- Brief description of Qualitative Research: Scope and areas of application.

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7. RESEARCH REPORT

- Developing a research proposal (synopsis)
- Research Report: Characteristics and Steps in report writing.

8. MEASURES OF RELATIONSHIP AND NPC

- Meaning, Assumption, Computation and Uses of:
- Product Moment Correlation
- Rank Difference Correlation
- Normal probability Curve: Meaning and Characteristics, Skewness and Kurtosis

9. INFERENCE STATISTICS

- Null Hypothesis, Type I and II errors, one and two tailed tests

- Standard error, Confidence limits. Significance of difference between Means, proportions and percentages (Independent samples)
- Parametric Tests t-test: • F-test-One-way ANOVA – Concept, assumption, computation and uses
- Non-Parametric Tests Chi-square Test of Equality and Independence: Concept, Computation, and uses.

Syllabus for Entrance Examination (GBU-ET) for Ph.D. (Education) of Subject Awareness

1. PHILOSOPHY OF EDUCATION

Meaning of philosophy, scope of Philosophical inquiry, meaning of education with reference to individual growth and development, origin and purpose of human existence as the common denominator between Philosophy and Education, need for philosophy of education. Educational Philosophy of Indian Thinkers: Rabindra Nath Tagore, Mahatma Gandhi, and Sri Aurobindo.

2. SOCIOLOGY OF EDUCATION

Development and scope, difference with Educational Sociology, sociological approach, researches in the area of Sociology of Education.

3. PSYCHOLOGY OF EDUCATION

Concept, Levels of learning, Gagne's types of learning. Theories of Learning- Thorndike's Connectionism, Pavlov's Classical Conditioning, Skinner's Operant Conditioning, Learning by Insight, Hull's Needs Reduction Theory, Tolman's Sign-Gestalt Theory, Kurt-Lewin's Field Theory and their Educational implications. Factors influencing Learning. PERSONALITY Concept, development, structure and dynamics of personality. Theories of Personality: Allport, Eysenck; Psychoanalytic approach of Freud, Erickson; Behavioural approach – Miller and Dollard and Bandura and Walter; Humanistic approach – Roger, Maslow;

4. METHODS OF EDUCATIONAL RESEARCH

Experimental; Normative Survey; Historical; Case Study; Developmental; Fundamental, Applied, Evaluative and Action Research; Qualitative Research: Phenomenological and Naturalistic Enquiry.

5. DATA ANALYSIS

Measures of central tendency, measures of variability, correlations, properties and uses of normal distribution, standard uses, difference between Means, Hypothesis testing, ANOVA.

6. COMPARATIVE EDUCATION

Scope and major concepts of Comparative Education, Methods in Comparative Education, Role of UNO in improving educational opportunities among the member countries, various organs of the UNO and their educational activities, Primary Education: U.S.A, U.K., Japan and India, Secondary Education: U.S.A., U.K. Japan and India, Erosion of Moral values and Ethics.

7. DEVELOPING A RESEARCH PROPOSAL

Problem and its sources; Selection and definition of problem; Objectives – Primary, secondary and concomitant; Hypothesis: Nature, definition, types, sources; Characteristics of a good hypothesis; Directional and non - directional hypothesis.

8. EDUCATIONAL EVALUATION

Concept, Need and Importance, Types, Principles, Blooms Taxonomy Tools Of Measurement 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. Standard Scores. Measures of Central Tendency, Measures of Variability, Normal Probability Curve New Trends in Evaluation: CBCS, Outcome Based Education, Grading System, Use of Computer In Evaluation.

9. TEACHER EDUCATION AND HIGHER EDUCATION

Basics of Teacher Education: Meaning, Concept, Scope, Historical Development, Elementary, Secondary and Teacher Education at Higher Level, Privatization, Globalization and Autonomy in Teacher Education, Problems in Teacher Education, Use of ICT In Education Professional Development: Professional Code of Ethics for Teacher Educators, Trends in Research in Teacher Education, Innovative Practices in Teacher Education. Concept of Higher Education: Concept and Purposes and History of Higher Education in India, Agencies and Their Functions in Higher Education: UGC, ICSSR, ICMR, NCTE and NAAC. Issues and Problems in Higher Education. Higher Education Management - Types of Universities- Central, State and Private, University Management and Autonomy, Important Policy Documents: NCF 2005, NCFTE 2009, NEP 2020.