

SYLLABUS *Group - A*

(M.Ed. Course) from June, 1992

Paper III- ELEMENTS OF EDUCATIONAL RESEARCH *Statistics*

Objectives:

To enable the students to

1. Understand the concept of the Scientific method.
2. Understand the process of research.
3. Differentiate among different types of research.
4. Understand the process of educational research.
5. Understand different kinds of educational research
6. Understand the use of different tools and techniques of educational research.
7. Use library for research purposes.
8. Conduct an action research in the field or education
9. Use different types of statistics in his research projects.
10. Present a research report and
11. Criticise simple research articles/reports.

Content :

Unit 1 : Sources of Generating Knowledge.

- (a) Need of generating knowledge.
- (b) Different sources of generating knowledge-Experience
Authority, Deductive reasoning, Inductive reasoning Scientific
- (c) Scientific method as a unique source.
 - (i) Characteristics
 - (ii) Steps involved

Unit 2 : Concept Nature and types of research

- (a) Concept of Research and characteristics of Research
- (b) Relationship between the Scientific and the Research method
- (c) Functions of research.
- (d) Types of research-fundamental, applied, action.

Unit 3 : Educational Research

- (a) Concept of educational research and its characteristics
- (b) Steps involved in the conduct of educational research
- (c) Different areas of educational research.
- (d) Sources of problems of educational research

Unit 4 : Kinds of educational Research.

- (a) Historical
- (b) Causal-Comparative.
- (c) Experimental designs- (Experimental/Quasiexperimental)

Unit 5 : Sampling and Techniques for sample Selection

- (a) Concept of sampling
- (b) Rationale of sampling
- (c) Types of sampling
- (d) Techniques of sample selection

Unit 6 : Tools and Techniques of Educational Research.

- (a) Content or document analysis
- (b) Tools for collecting data questionnaire, Opinionnaire, Attitud Attitude Scale, Rating Scale, Check list, Observation, Interview Schedule, Sociometric technique.
- (c) Achievement Tests, Intelligence Tests, Attitude Tests, Personality Tests.

Unit 7 : Use of Descriptive Statistics in Educational research

- (a) Measures of central tendency and variability
- (b) Graphic methods, percentiles and application
- (c) Normal curve- its properties and application
- (d) Coefficient of correlation by the product moment method

Unit 8 : Use of Inferential Statistics in Educational research

- (a) Predictions from regression equation
- (b) Significance of the measures of central tendencies and variability.
- (c) Significance of the coefficient of correlation.
- (d) Sampling distribution and the use of standard Error Formula.

Unit 9 : Report writing (Format)

- (a) Introduction - (Back ground & Review of related literature)
- (b) Statement of problem.
- (c) Hypothesis
- (d) Objectives
- (e) Limitations
- (f) Definitions - (Conceptual & Operational)
- (g) Sampling procedure
- (h) Tools used
- (i) Procedure (Collecting data & Conducting expt.)
- (j) Data Analysis
- (k) Result & interpretations
- (l) Summary & recommendations.
- (m) Bibliography - (Appendix etc)

Practical Work :- Students are expected to conduct & report of an action research in Education
(Compulsory)

Recommended Books : As per syllabus of Poona University.

Additional/ recommended Book

- 1) Walter R Borg Applied Educational Research - Longmans
London 1987

Reference Books

1. Best J.W. : Research in Education (4th Edition) : Prentice Hall of India, Pvt. Ltd., New Delhi, 1983.
2. Tuckman Bruce W. : Conducting Educational Research ; Harcourt Brace Javanovich, Inc., New York, 1978.
3. Garrett H.E. : Statistics in Education and Psychology : Yakills Piffer & Simon Pvt. Ltd., Bombay, 1973.
4. Kuriz Albert J. & Samual T. Mayo : Statistic in Education and Psychology , Narouza Publishing House, New Delhi, 1981.
5. Buch M. B. : A Survey of Research in Education (Centre of Advanced Studies in Education, M. S. University of Baroda), 1974.
6. Buch M. B. et. al. : Second Survey of Research in Education
7. Donald Ary , Lucy Cheser Jacobs & Asghar Kazavich : Introduction in Research in Education ; Holt, Rinehart and Winston, New York, 1979.
8. Kreppendorff Kians : Content Analysis : An Introduction to its Methodology ; Sage Publication, Beverly Hills. London, 1988.
9. Action Research - Corey
10. Fox David J : Techniques for the Analysis of Quantitative Data ; Holt, Rinehart & Winston. Inc., 1969.
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