



Syllabus

Ph.D. Course work in Education

**School of Education
Central University of South Bihar,
Gaya**

2017-18 onwards

Ph.D. Coursework in Education
Scheme of Courses and Syllabus

Course Structure

(Total Credits-12)

Course Code	Course Title	Credits
EDU 901	Research Methodology	4
EDU 902	Tools and Techniques of Research	4
EDU 903	Preparation and Presentation of Research Proposal	4
	Total Credits:	12

Paper – I

Course Code: EDU 901

Course Title- Research Methodology

Credits – 4

Course Objectives

1. To enable students to understand various research concepts.
2. To enable them to understand steps and types of research.
3. To make them aware about the ethical issues of research.
4. To strengthen their research skills and develop them as effective researchers
5. To enable them to use computer in the process of research.
6. To enable them to know the basic concepts and scope of educational research.
7. To enable them to understand basic steps and methods of educational research.

Course Contents

(Part-A)

Credits-2

Unit-I: Research: A Conceptual Framework

Research: its meaning and concept

Knowledge, facts, principles, theories and research as a source of knowledge

Scientific steps of enquiry and basic steps of research

Types of research: Basic Applied and Action research

Ethics in research

Methods and methodology

Intellectual property rights

Unit-II: Computer Applications

Word processing, data processing, graphical processing, uses of web tools for research, use of multimedia tools

Part-B

Credits-2

Subject Specific Research Methodology

Unit-III: Educational Research: Conceptual Framework and Scope

Concept of educational research, Educational research as behavioural/social science research, Differentiating educational research from science research, Characteristics of educational research, Aims and significance of educational research.

Understanding concepts and their roles in research: Concepts of variables, constructs, assumptions and theories, and their role in educational research.

Stage specific (preprimary, primary, secondary, higher education stages etc.), component specific (aims of education, curriculum, techniques of teaching, discipline, evaluation system etc.) and area specific (educational philosophy, educational psychology, educational sociology and history of education including many other areas of education), scope and challenges of educational research

Unit-IV: Steps and Methods of Educational Research

Basic Steps followed in educational research.

Methods of educational research: Descriptive, experimental, philosophical, participatory, ethnographic, content analysis, evaluative and historical.

Qualitative, quantitative and mixed research methods in education: Basic features, scope and limitations.

Policy research : Process of conducting and its implication

Interdisciplinary and intra-disciplinary perspectives of educational research

Designing the educational research: Designing process and steps for conducting research in different areas – experimental and non-experimental

Suggested Readings

- Ary, Donald, Jacobs, L.C., Sorenson, Chris.(2010). *Introduction to Research in Education*. Canada: Cengage Learning.
- Bailey, C.A. (2007). *A Guide to Qualitative Field Research*. California: Pinus Forge Press.
- Best, J. W. & Kahn, J.V. (2008). *Research in Education (10th edition)*. New Delhi. Prentice Hall Inc.
- Baker, P.J., & Beveridge, W.T.(1970). *Basic Computer Studies*. Edinburgh: Oliver and Boyd.
- Cohen, M. R. (1964). *Introduction to logic and scientific method*. London: Roulledge & Kegan Paul,
- Edwards, A. L. (1953). *Experimental designs in psychological research*. New Delhi: Amerind Publishing Co.
- Fields, C.(1973). *About Computers*. Massachusetts: Winthrop Publishers, INC.
- Fox, D. J. (1969). *The Research Process in Education*. New York: Holt, Rhinehart and Winston, Inc.
- Good, Barr & Scates (1962). *Methodology of Educational Research*. New York: Appleton Crofts
- Gorard, Stephen. (2001). *Quantitative Methods in Educational Research: The Role of Numbers made easy*. Continuum: London.
- Keevis, J. (1988). *Educational Research Methodology: An International Handbook*. Pergamon: Oxford.
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- Lewis-Beck, MS. (Ed) (2004). *The Sage Encyclopedia of Social Science Research Methods*. New Delhi: Sage Publications.
- Martyn H. (1989). *The Dilemma of Qualitative Method*. London: Routledge.
- Mc Burney, D. H & White, T. L. (2007). *Research Methods*. 7th Edition. Delhi: Akash Publication.
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- Patton, Michael Quinn.(1982). *Qualitative Evaluation Methods*. London: Sage Publication.
- Raman, V. Raja. *Fundamentals of Computer*. New Delhi: Prentice Hall of India.
- Sax, G.(1968) *Empirical Foundation of Educational Research*. New Jersey, Englewood Cliffs
- Singh, Kultar (2007). *Quantitative Social Research Methods*. New Delhi: Sage
- Sukia S.P, & Others.(1974). *Elements of Educational Research* (3rd edition). Bombay: Allied Publishers.
- Townsend, C.(1983). *How to get started with MS-DOS*. Oregon: Dilithium Press.
- Travers, R. M. W. (1978). *An Introduction to Educational Research*. New York: Mac Millan Publishing Co., Inc.
- Tuckman, B.W. (1978). *Analysing and Designing Educational Research*. New York: Harcourt Brace Jovanovich, Inc.
- Van Dalen, D. B.& Meyer, W. J.(1962). *Understanding Educational Research – An Introduction*. New York: McGraw-Hills Books Publication.

Paper – II

Course Code: EDU 902

Course Title- Tools and Techniques of Research

Credits – 4

Course Objectives

1. To enable students to identify the frontier problems in educational research with proper rationale.
2. To enable them to formulate appropriate research questions, objectives and hypotheses for educational research.
3. To develop their skills and competency in reviewing and referencing the educational research materials.
4. To enable them to identify, construct and use the different tools for educational research.
5. To develop among them the data scoring , data tabulation, and data analysis skills.
6. To develop skills in them for preparing appropriate research proposals and research reports in education.
7. To develop their competency to evaluate research proposals and research reports.

Course Contents

Unit-I: Problem selection, Hypothesis and Sampling in Educational Research

Selection of problem: Characteristics, sources and importance, limitation and delimitation; Identifying issues at frontiers of knowledge; Deriving research questions.

Review of literature: Process, steps, sources and its importance in problem selection; Referencing and bibliography; Different styles of referencing.

Hypothesis: Characteristic of a good hypothesis, sources, types and importance.

Sample selection: Types of sampling techniques and their steps, importance of sampling, characteristics of a good sample.

Unit-II: Tools and Techniques of Educational Research

Selection of Tools: Importance of Tools for Collection of data in research, Selection and Types of Tools used for collection of primary and secondary data.

Subjective and objective tools: Nature, characteristics and need for using subjective and objective tools in research.

Construction and uses of different types of tools in research: Tests, scales, questionnaire and schedules

Unit-III: Data Analysis in Educational Research

Data analysis: Scoring, tabulation and analysis of data; Procedure for data analysis and uses of parametric and non-parametric statistical techniques for data analysis

Uses of descriptive statistics in educational research: Measures of central tendency-Mean, median, mode; Measures of variability- range, average deviation, standard deviation, quartile deviation; and Measures of correlation- rank difference method and product moment method.

Uses of inferential statistics in educational research: Chi-square, Sign test, Median test, Mann Whitney U test, significance of difference between mean, ANOVA, ANCOVA.

Advance methods of correlation: biserial, point biserial, tetra choric and phi-coefficient.

Uses of computer in data generation, data processing and dissemination of research outcomes in educational research; Use of statistical software for data analysis.

Unit-IV: Preparation and evaluation of Research Proposal and Report

Preparation of proposal for educational research: Format and steps

Preparations of research report: Significance, Format and Style of Reporting.

Evaluation of research proposal and research report

Suggested Reading

- Aggarwal, Y. P. (1998). *Statistical Methods*. New Delhi: Sterling Publishers Pvt. Ltd.
- Cohen, L., Manion, L. & Morrison, K. (2007). *Research Methods in Education* (6th Ed.). London: Routledge.
- Cohen, Lewis and Manion Lawrence. (1994). *Research Methods in Education*. New York: Holt Rinehart and Winston Inc.
- Cohen, Louis. (2011). *Research Methods in Education*. London: Routledge
- Cresswell, J. W. (1994). *Research design*. London: Sage
- Elhance, D.N. (1975): *Practical Problems in Statistics*. Allahabad: Kitab Mahal, ELH-P 9341
- Gage, N. L. (Ed.). (1963). *Handbook of research in teaching*. Chicago: Rand McNally and Co.
- Garrett. H.E. (1988). *Statistics in Psychology and Education*. Bombay: Vakils, Feiffer & Semen's Ltd.
- Guilford, J. P. (1965). *Fundamental statistics in psychology and education*. New York: McGraw Hill Book Co.
- Guilford, J.P. & Fruchter, B. (1974) *Fundamental Statistics in Psychology & Education*. New York: McGraw Hill.
- Gupta, S.P. (2010). *Statistical Methods*. New Delhi: Sultan Chand
- Hamburg, M. (1979). *Basic Statistics: A Modern Approach*, Second Edition. New York: Harcourt Brace, HAM-B 13848.
- James H. M. and Schomachers, S. (1989). *Research in Education: A conceptual Introduction*. New York: HarperCollins.
- Kothari, C. R. (1998). *Quantitative Techniques*. New Delhi: New Age Publications.

- Koul, L. (1998). *Methodology of Educational Research*. New Delhi: Vikas Publications.
- Kurtz, A. K. & Mayo, S.T.(1980). *Statistical Methods in Education and Psychology*. New Delhi: Narosa Publishing House.
- Nagar, A.L. (1981): *Basic Statistics*. Bombay: Oxford, 1981. 299p. NAG-B 9793; 16609
- Pring, R (2004): *Philosophy of Education – Aims, Theory, Common Sense and Research*. Continuum: New York.
- Seigal, Sydne, Y.(1978) *Non-parametric Statistics for Behavioral Science*. New Delhi, McGraw Hill,
- Siegal, S. (1956). *Non-Parametric statistics for behavioral sciences*. New York: McGraw Hill.
- Singh, Arun Kumar(1986) *Test, Measurement and Research Methods in Behavioural Sciences*. New Delhi: McGraw Hill
- Togrerson, W. S. (1965). *Theory and methods of scaling*. New York: Willey.
- Tuckman, B.W. (1979) *Conducting Educational Research* (2nd edition). New York: Harcourt Brace Javanovich, Inc.
- Wayne, K. Hoy (2010). *Quantitative Methods in Education*. Los Angeles: Sage

Paper –III

Course Code: EDU 903

Preparation and Presentation of Research Proposal

Credits – 4

Course Objectives

1. To enable students to develop research proposal in education as per research norms.
2. To develop research proposal presentation skills among them.
3. To develop competency among them to conduct research as per the guided research proposal.

Course Contents

The research proposal on the topic chosen by the candidate for her/his Ph.D shall be submitted as computer typed script as per the writing discipline followed by seminar presentation. Each student shall be required to articulate in about 5000 words in her/his individual subject of study in the intended area of research by selected bibliography. The written submission on the chosen topic shall be evaluated for 75 percent weightage and the seminar presentation for 25 percent weightage. The research proposal is supposed to give evidence of two things: a comprehensive review of existing literature of the past studies in the subject-area, and the student's awareness of and adherence to the discipline of writing research proposal/ paper/ dissertation and documentation.

Evaluation Procedure (Course code: EDU 901, EDU 902 and EDU 903)

The evaluation of the Course code EDU 901 and EDU 902 shall be done by concerned faculty and the evaluation report is to be sent to the controller of examination office of the University. For each of the three courses there shall be only end semester examination of 100 marks. The Grades of these courses shall be the same as that of respective PG courses of the University and shall not be placed before the Board of Examiners.

Regarding Course code EDU 903, 100 marks allotted for this will be split in to two parts, 75% for research proposal writing and 25% for its presentation. This evaluation shall be done jointly by the RAC and the CRDC/DRDC and submitted to COE of the University.
