

SYLLABUS



(SCHEME OF COURSE WORK FOR Ph.D.)

Education

SESSION: 2015 - 2016

IASE Deemed University
GVM, SARDARSHAHR

Scheme of Examinations for Pre-Ph.D. Course work (Education) : 2015-16

Programme Structure

The Pre-Ph.D. course work shall comprise of only one Semester (i.e. six months) in which there shall be four compulsory papers.

<i>S.No</i>	<i>Name of Paper</i>	<i>Theory</i>	<i>Max Marks</i>	<i>Practicum</i>	<i>Face to Face Contact</i>
1.	Paper- I Research Methodology	35	35	15	34 hrs
2.	Paper-II Quantitative/ Qualitative Research	35	35	15	34 hrs
3.	Paper-III Analyzing & Reporting Quantitative/Qualitative Research	35	35	15	34 hrs
4.	Pilot Study and Review of Literature		50	50	34 hrs

Grant Total = 200 Marks

Following Areas of Research may include:

- 1. Psychology, Philosophy and Sociology of Education, Curriculum Development –issues and concern, Transaction of curriculum and co-curricular areas, Inclusive Education for differently able students, Teacher education- issues and concern, Educational Administration and management, Finance in education, Professional ethics and commitments of teachers, Values in education, Peace & Harmony, Acts in Elementary Education, Right to education (RTE), Instructional communication and technology (ICT), Yoga Education, Indian Culture, Gender Sensitization, Local needs based research etc.**

<i>Course</i>	<i>Course Title</i>	<i>Face to Face Contact Hours</i>	<i>Practicum/ Workshop/ Seminar (Hours)</i>	<i>Assignment (Hours)</i>	<i>Self-Directed Learning (Hours)</i>	<i>Total Learning (Hours)</i>
I	Research Methodology	34 Hrs.	16Hrs	50Hrs	50Hrs	150
II	Qualitative/Quantitative Research	34 Hrs.	16Hrs	50Hrs	50Hrs	150
III	Analysis & Reporting of Qualitative/Quantitative Research	34 Hrs.	16Hrs	50Hrs	50Hrs	150
IV	Pilot Study and Review of literature	34 Hrs.	16Hrs	50Hrs	50Hrs	150
<i>Total</i>		<i>136</i>	<i>64</i>	<i>200</i>	<i>200</i>	<i>600</i>

Programme Detail

Note:- Course Work

The course work for Ph.D. Programme shall comprise of four papers of 100 marks each, Viz.,

Course:-1 : Research Methodology

Course -2 Elective: Qualitative/Quantitative Research

Course -3 Elective: Analysis & Reporting of Qualitative/Quantitative Research

Course -4 Pilot Studies and Review of Literature

Candidate would make a choice to select qualitative or quantitative area, on the bases of their own interest and get specialization in the selected type of research.

Each course/paper shall have 34 face to face direct contact hours, 16 hrs for workshop/seminar/presentation, 50 hrs for Assignment and 50 hrs for Self-Directed Learning.

Candidate shall attend at least 80% of the course works in each paper to be eligible to appear for the examination.

These will be held four contact programmes in which candidate have to present for face to face interaction, presentation of the work done by him/her and for remedies of problems.

In first contact programme candidate will be assigned with practicum related to field work which will be presented by the candidate in seminar/workshop / presentation during second contact programme and so on till to last programme.

Before registration in Ph.D. scholar has to publish two research/conceptual paper in National & International reputed journal and at least a presentation in seminar/conference or participation in workshop.

Paper- I Research Methodology

Contact Hours per week: 2
Internal: 15

Maximum Marks:50
External: 35

Learning Outcomes: After completion of the course, the after completion of the course the student-teachers will be able to:-

- 1. To enable the research scholars to understand the different types of Educational Research, selection and explain the method appropriate for a research study.*
- 2. Research scholars will be able to explain the characteristics of quantitative, qualitative and mixed research.*
- 3. Scholars will be able to conduct a literature search and develop a research proposal.*
- 4. Explain a sampling design appropriate for a research study & explain tool, design and procedure for collection of data explain the importance of documentation and dissemination of researches in education.*
- 5. To create interest in searching and solving educational problems through research.*
- 6. To provide the knowledge of procedure of different Research tools' administration to the research scholar.*

Unit – 1: Classification of researches in education

1.1 Need, Utility and Importance of research in education.

1.2 Classification of Research in education-

1.2.1 Philosophical, Historical, Descriptive Experimental, Case Study

1.2.2 Context of Qualitative and Quantitative researches.

1.2.3 Interdisciplinary & Mix Research

Unit-2: Sequential stages in the research process with the purpose of each stage in the case of Qualitative and Quantitative researches

2.1 Formulation of Research problem

2.2 Research objectives

2.3 Research questions- Descriptive questions, co-relational questions and causal questions.

2.4 Purposes of Literature review for Qualitative research, and Quantitative research.

2.5 Research designs: Experimental and survey- longitudinal and cross sectional which includes variables and indicators definition

Unit-3 Development of research tools

3.1 Development of research tools

3.2 Pilot testing/ tryout: main purposes- suitability of tools to provide required information,

3.3 Data collection

3.4 Data analysis and data validation

3.5 Format of Research report

Unit- 4: Research tools-Main features and typical weaknesses

4.1 Questionnaires

4.2 Psychological tests

4.3 Scales

4.4 Interviews

4.5 Observations

Unit-5 Construction and standardization of Psychological tests

5.1 Types of tools and procedure of their administration

5.2 Methods of item analysis: Davis and Stanley methods for estimation of difficulty value and discriminating power and also using these as criteria of accepting items in the finalization of tools

5.3 Validity- content validity, Criterion-related validity, and construct validity; and different methods of estimating reliability, usability

5.4 Factors affecting indicators of validity and reliability

Assignments:-

Review at least 10 India & 10 foreign Literature on a topic of research given by the expert/department with justification of your selected research problem.

Critical review of any one research project/Work /book with regard to - Title or statement of the problem - Approach/Design - Research Hypothesis/Research Questions - Sampling - Tools - Statistical Techniques, finding and further action plan.

References:

1. *National Council of Educational Research and Training (2003) Action Research-Handbook for Primary Teachers*
2. *Methodology of Research in Social Sciences by O. R. Krishnaswamy and M. Rangnatham Himalaya publication House, 2005, ISBN: 8184880936*
3. *Research Methodology: Methods and Techniques by C. R. Kothari, New Age International Publishers, ISBN:81-224-1522-9*
4. *Statistical Methods for Research Workers by Fisher R. A., Cosmo Publications, New Delhi ISBN:81-307-0128-6*
5. *Design and Analysis of Experiments by Montgomery D.C. (2001), John Wiley, ISBN: 0471260088*
6. *Keevs, J.P.(198) Educational Research, Methodology, and Measurement: An international handbook, Oxford, Pergamon*

*Paper – II- Qualitative Educational Research
(Elective)*

Contact Hours per week: 2
Internal: 15

Maximum Marks: 50
External: 35

Learning Outcomes: After completion of the course, the after completion of the course the student-teachers will be able to:-

- Understand concept, Characteristics & Themes of Qualitative Research.
- Examine different types of qualitative research and their characteristics.
- Examine the concept of Qualitative Research.
- Develop a tool which allows for the evaluation and data collection of Qualitative Research
- Design a framework or outline of Qualitative Research.
- Investigate appropriate methods of data analysis.
- Explain the processes of Qualitative Research
- Explain how to plan the research project of Qualitative Research.

Unit I: Introduction to Qualitative Research

- Meaning, concept and types of Qualitative Research.
- Qualitative Research: Characteristics, issues, concerns & major approaches
- Relevance of Qualitative Research in education.
- Qualitative Research in education: Retrospect and prospect.
- Themes of Qualitative Research & research question.

Unit II- Qualitative Taxonomies

Meaning, Concept and description of

- ***Narrative research***
- ***Phenomenology***
- ***Ethnography***
- ***Grounded theory***
- ***Case study***
- ***Action research***

Unit III- Types of Qualitative research

- Meaning, Concept and basic steps in conducting research-
- Basic qualitative/Interpretive research,
- Content & Semiotics analysis,
- Historical research,
- Critical research ,
- Feminist,
- Participatory research.

Unit IV- Data Analysis in Qualitative Research

- Characteristics and applications

- Criticism of historical data
- Coding of qualitative data – Axial coding, Selective coding
- Methods of qualitative data analysis—content analysis, logical and inductive analysis, illustrative method; analogies.
- Meta analysis & Triangulation of data.

Unit V- Reporting and Evaluation in Qualitative Research

- Concept and Meaning of Evaluation or Analyzing of Data in Qualitative Research
- Strategies of data Interpretation in Qualitative Research
- Concept and meaning of reporting of the data in Qualitative Research
- Steps of preparing a report of the data in Qualitative Research

Practicum/Field work

- Plan & preparation of Qualitative Research proposal.
- Identify qualitative research problems and develop a research synopsis in the format prescribed by the university.

References

- Anpara, Vincent & Mertz Norma T. (2006). Theoretical Frameworks in Qualitative Research. SAGE Publication.
- Best J.W. (1986) Research in Education, New Delhi: Prentice Hall of India Pvt. Ltd. Borg, W.R. and Gall, M.D. (1983) Educational Research – An Introduction, New York, Longman, Inc.
- Creswell, John W. (2007). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. SAGE Publication.
- Elliott, Jane (2005). Using Narrative in Social Research: Qualitative and Quantitative Approaches. SAGE Publication.
- Fraenkel, J.R., Wallen, N.E. (1983) How to Design and Evaluate Research in Education, Singapore: McGraw Hill, Inc.
- Gravetter. F.J. & Wallanau, C.B. (2002). Essentials of Statistics for the Behavioural Sciences (4th edition) Australia, Wodsworth.
- Grbich, Carol (2006). Qualitative Data Analysis: An Introduction. SAGE Publication.
- Gupta, Santosh (1983) Research Methodology and Statistical Techniques, New Delhi : Deep and Deep Publisher.
- Kerlinger, F.N. (1973) Foundations of Behavioural Research, New York : Holt, Rinehart and Winston.
- Kaul, Lokesh (1984) Methodology of Educational Research, New Delhi : Vikas Publications.
- Leary, M.R. (2004). Introduction to Behavioural research Methods (4th edition) Boston: Pearson Prentice hall
- Lichtman, Marilyn (2006). Qualitative Research in Education-A User Guide. SAGE Publication.
- Srivastava, G.N.P. (1994) Advanced Research Methodology, New Delhi : Radha Publications.
- Sidhu, K.S. (1987) Methodology of Research in Education, New Delhi: Sterling Publishers Pvt. Ltd.

- Travers, R.M.W. (1969) An Introduction to Educational Research, New Delhi: Sterling Publishers Pvt. Ltd.
- Van, Dalen, Debonald, B. and Meyer, William J. (1979) Understanding Educational Research: An Introduction, New York: McGraw Hill Co.
- Salkind, N.J. (2006). Exploring Research (Sixth Edition) NJ: Pearson Prentice Hall.
- Wiersma, W.(2000). Research Methods in Education. (7th edition) Allyn & Bacon.
- Willis, Jerry W. (2007). Foundations of Qualitative Research: Interpretive and Critical Approaches. SAGE Publication.

Quantitative Educational Research

Course – III (Elective)

Contact Hours per week: 2

Internal: 15

Maximum Marks: 50

External: 35

Learning Outcomes: After completion of the course, student-teachers will be able to:-

- Understand concept, Characteristics & Themes of Quantitative educational Research.
- Examine different types of Quantitative educational Research and their characteristics.
- Examine the concept of Quantitative educational Research.
- Develop a tool which allows for the evaluation and data collection of Quantitative educational Research.
- Design a framework or outline of Quantitative educational Research.
- Investigate appropriate methods of quantitative data analysis.
- Explain the processes of Quantitative educational Research.
- Explain how to plan the research project of Quantitative educational Research.

Unit I: Introduction to Quantitative Research

- Quantitative Research: Meaning, concept, steps and characteristics.
- Nature, scope and trends of quantitative research
- Relevance of Quantitative Research in education.
- Research Data: Sources and Collection.
- Sources of educational data: Individual, Institutions, Documents, Census, Journals, Books, Schools of thought etc.

Unit II- Tool, Techniques & Sampling

- a. Techniques and Tools of data collection: Observation, interview, questionnaire, scales, inventory, checklist.
- b. Diagnostic & Remedial Test.
- c. Various types of test- Intelligence, Aptitudes, Interests, Creativity and Personality.
- d. Sampling techniques: Concept, need, probability and non-probability samples, sampling errors and their control.

Unit III- Quantitative Methods of Research

- Experimental Research: Meaning, concept, Nature of experimental research, Variables in experimental research independent, dependent and confounding variables; ways to manipulate an independent variable, purpose and methods of control of confounding variables.
- Descriptive studies: assessment, evaluation, and research.
- Follow-up study and The post Hoc fallacy
- Ex-post facto research.

Unit IV- Quantitative Research Designing:

- Experimental Research designs: Single-Group Pre-test-Post-test Design, Pre-test-Post-test Control-Group Design, Post-test only Control-Group Design, and Factorial Design
- Quasi-Experimental Designs: Non-equivalent Comparison Group Design, and Time-Series Design
- Non- Experimental Research
- Simple cases of Casual-Comparative and Correlational research; necessary conditions for causation
- Techniques of control: matching, holding the extraneous variable constant and statistical control
- Classification by Time: Cross-sectional, Longitudinal (Trend and Panel studies), and Retrospective; and classification by research objectives Descriptive, Predictive and Explanatory.

Unit V- Data Analysis in Quantitative Research

- Student's Distribution & homogeneity of variances
- Analysis of Variances: Concept and procedure.
- Partial and multiple Correlation
- Multiple regression and their use in educational research.
- Research report of Quantitative Research

Practicum/field work-

- Plan & preparation of Qualitative Research proposal.
- Identify qualitative research problems and develop a research synopsis in the format prescribed by the university.

Reference

- Best J.W. (1986) Research in Education, New Delhi: Prentice Hall of India Pvt. Ltd.
- Borg, W.R. and Gall, M.D. (1983) Educational Research – An Introduction, New York, Longman, Inc.
- Creswell, John W. (2007). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. SAGE Publication.
- Elliott, Jane (2005). Using Narrative in Social Research: Qualitative and Quantitative Approaches. SAGE Publication.
- Fraenkel, J.R., Wallen, N.E. (1983) How to Design and Evaluate Research in Education, Singapore: McGraw Hill, Inc.
- Gravetter. F.J. & Wallanau, C.B. (2002). Essentials of Statistics for the Behavioural Sciences (4th edition) Australia, Wodsworth.
- Gupta, Santosh (1983) Research Methodology and Statistical Techniques, New Delhi: Deep and Deep Publisher.
- Kerlinger, F.N. (1973) Foundations of Behavioural Research, New York: Holt, Rinehart and Winston.
- Kaul, Lokesh (1984) Methodology of Educational Research, New Delhi: Vikas Publications.
- *Edition.*

*Paper – III- Analyzing and Reporting Of Quantitative Research
(Elective)*

Contact Hours per week: 2
Internal: 15

Maximum Marks: 50
External: 35

Learning Outcomes: After completion of the course, the after completion of the course the student-teachers will be able to:-

- Understand the application of Quantitative analysis in a real situation.
- Use Computer and spreadsheet models to perform quantitative analysis.
- Discuss possible problems in using quantitative analysis
- Describe the steps in testing a hypothesis.
- Describe appropriate applications of measures of variability and compute variance, correlation, e-test etc.
- Perform a meta-analysis and explain the meaning of meta-analysis outcome.

Unit – 1 Quantitative Analysis Approach:

Definition the problems, Developing a Model/design, acquiring Input data, Developing a solution, testing the solution, analyzing the results.

Unit -2 Quantitative Research Plan:

- Suggestions for deriving hypothesis; Inductive and deductive.
- Characteristics of a usable hypothesis.
- Testing the Hypothesis.
- Tentative Research Plan
- Pilot Study

Unit-3 Organizing & Summarizing data:-

- Scales of Measurement.
- Organizing Research data: Graphic presentation, Measurement of Central Tendency, Variability and Relative Position
- Normal Curve
- Correction
- Meta Analysis
- Using the Computer for data analysis

Unit-4 Sampling and Inferential Statistics:-

Sampling – Meaning, Rationale types and steps

Concept of Sampling Error:-

Strategy of Inferential Statistic: Null hypothesis,

Type I & Type II Errors, Level of Significance

Determine the Appropriate Sample Size:-

Power

Unit-5 General Strategy of Statistical Tests:-

T- test: Independent samples, dependent samples

Analysis of Variance: Multifactor analysis of variance chi-square tests of significance

Analysis of Covariance

Assignment-

Make a proposal of Pilot study related to the topic in which synopsis was made, after execution ,analyses ,get finding and conclusion, write a report on your mini-research.

Note- Report of pilot study will be present or exhibit during contact programme.

References:

- Leary, M.R. (2004). Introduction to Behavioral research Methods (4th edition) Boston: Pearson Prentice hall
- Srivastava, G.N.P. (1994) Advanced Research Methodology, New Delhi: Radha Publications.
- *Guiford , J.P.: Fundamental Statistics in Psychology and Education, London Mc Graw Hill Book Co.*
- *Selling, Clainandtures, Research Methods in Social Relation; London Nethuses & Co. Travers, R.M.W., An introduction to Educational Research, London Mc Millian Co.*
- *Sukhia, S.P., Melhotra, P.V. , Elements of Educational Research, New Delhi, Allied Publishers.*
- *Best, J.W., Research in Education, Englewood, Chiffs, J.N. Prentice Hall.*
- *Good, W & Hatt. P.K. : Method of Social Research, London McGrew HillBook Co. 1962.*
- *Good : Methods of Educational Research, Appleton Centurry Crofts New York.*
- *John P De CeCCO: William R. Crawford : The Psychology of learning and Instructions, Prentice Hall of India Pvt. Ltd. New Delhi, 1977 second*

*Paper – III- Analyzing and Reporting Of Quantitative Research
(Elective)*

Contact Hours per week: 2
Internal: 15

Maximum Marks:50
External: 35

Learning Outcomes: After completion of the course, the after completion of the course the student-teachers will be able to:-

- Identify ethical issues associated with qualitative Research.
- Explain different approaches to selecting participants for quantitative study.
- Describe the general procedures followed in the analysis of quantitative data.
- State the role of categories in quantitative data analysis.

Unit – 1 Quantitative research plan:

Research problem, choosing a problem, sampling, data collection, Ethical considerations in qualitative research.

Unit -2 Analyzing qualitative research:

- Data analyzing.
- Familiarizing and organizing.
- Coding and Reducing.
- Interpretation & Representation

Unit-3 Reporting qualitative research:-

(1) Abstract (2) Introduction (3) Research design (4) Methods, Site and sample Selection (5) Finding (6) Interpretation & Implications (7) Reference (8) Appendix.

Unit-4 Technology in qualitative analysis:-

1. CAQDAS – meaning, concept & its use
2. ATLAS. ti
3. QSR NVIVO
4. Hyper Research
5. MAXQDA

Unit-5 Rigor in qualitative research:-

1. Credibility
2. Transferability
3. Dependability
4. Conformability
5. Evaluating qualitative reports

Assignment-

Make a proposal of Pilot study related to the topic in which synopsis was made, after execution, analyses, get finding and conclusion, write a report on your mini-research.

References:

- Leary, M.R. (2004). Introduction to Behavioral research Methods (4th edition) Boston: Pearson Prentice hall
- Srivastava, G.N.P. (1994) Advanced Research Methodology, New Delhi: Radha Publications.
- *Guiford , J.P.: Fundamental Statistics in Psychology and Education, London Mc Graw Hill Book Co.*
- *Sellting, Clainandtures, Research Methods in Social Relation; London Nethuses & Co. Travers, R.M.W., An introduction to Educational Research, London Mc Millian Co.*
- *Sukhia, S.P., Melhotra, P.V. , Elements of Educational Research, New Delhi, Allied Publishers.*
- *Best, J.W., Research in Education, Englewood, Chiffs, J.N. Prentice Hall.*
- *Good, W & Hatt. P.K. : Method of Social Research, London McGrew HillBook Co. 1962.*
- *Good : Methods of Educational Research, Appleton Centurry Crofts New York.*
- *John P De CeCCO: William R. Crawford : The Psychology of learning and Instructions, Prentice Hall of India Pvt. Ltd. New Delhi, 1977 second*