

Course Title: **Research Methodology in Education**
 Course No: Ed. 532
 Level: M.Ed.
 Semester: Third

Nature of course: Theoretical
 Credit Hours: 3
 Teaching Hours: 48

1. Course Description

This course is designed to provide the students with the basic concepts, knowledge and skills of research methodology. It intends to make students familiar with different types of research methods and enrich them with an in-depth understanding of quantitative as well as qualitative research designs, sampling techniques, preparation and validation of data/information tools, data/information analysis procedures, and ethical considerations related to these designs. The course also focuses on the study and application of descriptive and inferential statistics in research. Further, it will help students develop in-depth knowledge and skills required for developing proposal and conducting research using quantitative, qualitative and mixed methods approach, and writing research report.

2. General Objectives

The general objectives of this course are as follows:

- To make the students familiar with the basic concepts of research ,
- To acquaint the students with quantitative and qualitative research designs,
- To prepare the students to use statistical tools in quantitative data analysis and use thematic and narrative analysis approach in qualitative data analysis
- To enable students in preparing research proposal for different nature of inquiry, and
- To prepare the students to write research report using appropriate methods and approaches.

3. Specific objectives and contents

Specific Objectives	Contents
<ul style="list-style-type: none"> • Clarify the meaning and definition of research and educational research • Select and define variables • Explain use of scale of measurement in research • Select, define, analyze and state researchable problems • State objectives, write research questions, and formulate hypothesis • Delimit the problems by explaining the scopes of the study • Write review of related literature, and design theoretical and conceptual framework 	<p>Unit 1: Concept of Research (10)</p> <p>1.1 Concept and characteristics of research</p> <p>1.2 Educational research and its importance</p> <p>1.3 Variables and scale of measurement in research</p> <p>1.4 Research Problem</p> <p style="padding-left: 20px;">1.5.1 Sources of research problem</p> <p style="padding-left: 20px;">1.5.2 Identifying, defining, analyzing and stating research problem</p> <p>1.5 Research objectives</p> <p>1.6 Research questions</p> <p>1.7 Hypotheses</p> <p>1.8 Limitations and delimitations in research</p> <p>1.9 Review of related literature</p> <p style="padding-left: 20px;">1.9.1 Primary, secondary and online sources of literature</p> <p style="padding-left: 20px;">1.9.2 Steps in literature review</p> <p style="padding-left: 20px;">1.9.3 Review of Theoretical literature/related concept and theories</p> <p style="padding-left: 20px;">1.9.4 Review of Empirical Literature/previous studies</p>

	1.11 Theoretical and conceptual framework
<ul style="list-style-type: none"> • State the characteristics of quantitative research • Use appropriate sampling in quantitative research • Develop and validate different types of tools • Design various types of researches • Use different approaches of data analysis in quantitative research • Explain process of quantitative data analysis • Describe process of presenting data/findings on tables, figures and graph • Explain techniques of analysis and interpretation of data • Explain different ethical aspects in quantitative research 	<p>Unit 2: Quantitative Research (20)</p> <p>2.1 Concept and characteristics</p> <p>2.2 Types and steps of quantitative research designs</p> <p> 2.2.1 Survey (cross-sectional and longitudinal)</p> <p> 2.2.2 Ex-post facto</p> <p> 2.3.3 Correlational</p> <p> 2.3.4 Experimental (pre, true, and quasi)</p> <p>2.3 Sampling in quantitative research</p> <p> 2.3.1 Probability sampling design</p> <p> 2.3.2 Non-probability sampling design</p> <p>2.4 Construction and validation of research tools/instruments</p> <p> 2.4.1 Questionnaire</p> <p> 2.4.2 Attitude scale</p> <p> 2.4.3 Interview schedule</p> <p> 2.4.4 Check list and</p> <p> 2.4.5 Rating scale</p> <p>2.5 Quantitative data analysis</p> <p> 2.5.1 Concept of quantitative data analysis</p> <p> 2.5.2 Data processing and tabulation</p> <p> 2.5.3 Summarizing and presenting data using tables, figure and graph</p> <p> 2.5.4 Analysis and interpretation of data/finding</p> <p>2.6 Ethical issues in quantitative research</p>
<ul style="list-style-type: none"> • Differentiate between quantitative and qualitative research • Explain sampling strategies in qualitative research • Design different qualitative research • Describe and use qualitative data collection techniques • Explain qualitative data analysis approach • Illustrate basic steps of qualitative data analysis • Discuss the techniques of maintaining quality and credibility/validity of qualitative data • Describe ethical aspects in qualitative inquiry 	<p>Unit 3: Qualitative Research (8)</p> <p>3.1 Concept and characteristics</p> <p>3.2 Qualitative research designs</p> <p> 3.2.1 Case study</p> <p> 3.2.2 Ethnography</p> <p> 3.2.3 Narrative inquiry</p> <p> 3.2.4 Grounded theory</p> <p> 3.2.5 Phenomenology</p> <p>3.3 Sampling strategy in qualitative research</p> <p>3.4 Collection and analysis of qualitative data</p> <p> 3.4.1 Techniques of collecting qualitative data</p> <ul style="list-style-type: none"> • In-depth interview • Participant observation • Focus Group Discussion (FGD) <p> 3.4.2 Techniques of maintaining quality and credibility/validity of qualitative data</p> <p> 3.4.3 Qualitative data analysis</p> <ul style="list-style-type: none"> • Thematic and narrative approach • Basic steps in analyzing and interpreting qualitative data <p>3.5 Ethical consideration in qualitative research</p>

<ul style="list-style-type: none"> • Conceptualize and explain characteristics of mixed method research • Discuss different types of mixed method research • Explain steps in conducting mixed method research • Give concepts and characteristics of action research in education • Describe types of action research design with examples • Explain steps in conducting action research 	<p>Unit 4: Mixed Method and Action Research (5)</p> <p>4.1 Concept and characteristics of mixed method research</p> <p>4.2 Types of mixed method research design</p> <p>4.2.1 Concurrent/convergent design</p> <p>4.2.3 Sequential design</p> <p>4.2.3 Embedded design</p> <p>4.3 Steps in conducting mixed research</p> <p>4.5 Action research</p> <p>4.5.1 Concept and characteristics of action research</p> <p>4.5.2 Types of action research design: practical and participatory</p> <p>4.5.3 Steps in conducting action research</p>
<ul style="list-style-type: none"> • State the need of proposal and requirements for research report • Explain essential components of research proposal • Develop a research proposal by steps by steps manner in chosen/given problem • Describe essential skills and steps in research report writing • Explain the components of research report/thesis • Use APA format in thesis writing in relation to layout 	<p>Unit 5: Proposal and Report Writing (5)</p> <p>5.1 Concept and need of research proposal</p> <p>5.2 Components of research proposal</p> <p>5.3 Steps in developing research proposal</p> <p>5.2 Essential of report writing</p> <p>5.2.1 Professionalism</p> <p>5.2.2 In-depth knowledge</p> <p>5.2.3 Concentration</p> <p>5.3.4 Writing skill</p> <p>5.3 Basic skills in report writing (Using APA Style)</p> <p>5.3.1 Abstract</p> <p>5.3.2 Content organization and linkage</p> <p>5.3.2 Citation</p> <p>5.3.3 Presenting tables and figures</p> <p>5.3.4 Referencing</p> <p>5.4 Format and Components of research report/thesis as prepared by FOE, Dean's Office</p>

4. Instructional techniques: Two types of instructional methods are suggested: General and specific

4.1 General instruction techniques- Participatory interactive lecture method, discussion, question-answer, brainstorming, etc are suggested.

4.2 Specific instructional techniques- The following class tasks/ homework/ project work are suggested to conduct in individually/group:

- To select reasonable researchable problems (Unit-I),
- To define and write appropriately the selected problem (Unit-I),
- To limit/delimit the problem (Unit-I),
- To draw the significance of the selected study (Unit-I),
- To write objectives of the study (Unit-I),
- To review and write reviewed work in paragraph in required format (Unit-I),

- To design research format in accordingly the situation or context of the study (Unit-IV, V),
- To prepare and validate data/information collection tools for specified research (Unit-II, & III),
- To prepare analysis paragraph for dummy data (Unit-II, III, IV, & IV),
- To cite and prepare reference list appropriately using Publication Manual of APA (Unit-V),
- To write research proposal and present it in the classroom under the guidance (Unit-V).

5. Evaluation

5.1 Internal Evaluation 40%

Internal Evaluation will be conducted by course teacher based on following activities.

1) Attendance	5 points
2) Participation in learning activities	5 points
3) First assignment	10 points
4) Second assignment/mid-term exam	10 points
5) <u>Third assignment/assignment</u>	<u>10 points</u>
Total	40 points

5.2 External Evaluation (Final Examination) 40%

Examination Division, office of the Dean, Faculty of Education will conduct final examination at the end of semester.

1) Objective type question (Multiple choice 10x1)	10 points
2) Short answer questions (6 questions x 5 points)	30 points
3) <u>Long answer questions (2 questions x 10 points)</u>	<u>20 points</u>
<u>Total</u>	<u>60 points</u>

6. Recommended Books and Reference Materials

Recommended Books

- American Psychological Association.(2009). *Publication manual of American Psychological Association*.(6th ed.). Washington, DC: APA. (For unit-V)
- Cohen, L., Manion, L., & Morriuson, K., (2010). *Research methods in education*. Noida, India: Sirohi Brothers. (For Units- II, III, IV).
- Creswell, John W. (2011). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. (4th ed.). New Delhi: PHI Learning Pvt. Ltd. (For units- I, II, III, & IV)
- Flick, U. (2006). *An introduction to qualitative research* (Third edition). Los Angeles Sage Publication. (For unit III)
- Kerlinger, F.N.(1983). *Foundations of behavioral research*. New York: Holt Rinehart and Winston, Inc. U.S.A. (For units- I, & II)
- Lodico, M.G., Spaulding, D.T. and Voegtle, K.H. (2006). *Method in educational research: From theory to practice*. San Francisco, USA: Jossey-Bass: (For unit II, III and V)

- Mack, N., Woodsong, C., Mac Queen, K. M., Guest, G., & Nancy, E.(2005). *Qualitative research methods: A data collector's field guide*. California: USAID, Family Health International. (For units-II, & III)
- Pelton, R.P. (Ed) (2010). *Action research for teacher candidates: Using classroom data to enhance instruction*. Maryland: Association of Teacher Educators. (For unit IV)
- Punch, K. (2000). *Developing effective research proposal*. London Sage Publication. (For unit V)

References

- Best J.W., & Kahn J. V.(2012). *Research in education*. New Delhi: Prentice Hall of India Pvt. Ltd.
- Elliott, J. (1991). *Action research for educational changes*. Buckingham: Open University Press
- Koul, L., (2009). *Methodology of educational research*. New Delhi: Vikash Publishing House Pvt. Ltd.
- Denizen, N. K., & Lincoln, Y. S. (Eds.).(2000). *Handbook of qualitative research*. London: Sage Publication.
- Hancock, B.(2002). *An introduction to qualitative research*. Nottingham: Trent Focus Group.
- Van Dalen, B. & Mayer, W. J.(1966). *Understanding educational research: An introduction*. California, America: Mc Graw-Hill Series in Education.