

Course Code	Course Name	Credits
26ED555	RESEARCH METHODOLOGY IN EDUCATION	04

Course Objectives

The course aims to,

- ✓ Develop advanced understanding of research paradigms and methodologies in education.
- ✓ Enhance skills in designing, conducting, and evaluating educational research.
- ✓ Foster critical analysis of quantitative, qualitative, and mixed-methods research.
- ✓ Enable the use of statistical tools and digital technologies in data analysis.
- ✓ Promote ethical research practices and academic integrity.
- ✓ Encourage innovation, interdisciplinary research, and policy-oriented studies.

Learning Outcomes

After the completion of the course, the Learner will be able to,

- ❖ Critically evaluate different research paradigms and approaches.
- ❖ Design and conduct empirical research in education.
- ❖ Apply appropriate statistical and qualitative analysis techniques.
- ❖ Use digital tools (e.g., SPSS, Excel, Qualitative Software) for research.
- ❖ Interpret research findings and write scholarly reports.
- ❖ Demonstrate ethical responsibility in research practices.

Unit 1 - Foundations of Educational Research (12 hours)

Meaning, nature, scope, and significance of educational research - Types of research: Basic, Applied, Action, Experimental, Historical - Formulation of research problem - Review of Related Literature: Sources, tools, and techniques.

Unit 2 – Research Design and Sampling Techniques (12 hours)

Research design: Meaning, characteristics, and types - Experimental, Quasi-Experimental, Descriptive, Correlational - Sampling: Concepts, types (Probability & Non-Probability).

Unit 3 - Quantitative Data Analysis (12 hours)

Classification and tabulation of data - Measures of Central Tendency and Variability - Hypothesis testing: t-test, ANOVA (introductory level) - Use of statistical software (SPSS/Excel basics) - Interpretation of statistical results.

Unit 4 – Qualitative and Mixed Methods Research (12 hours)

Qualitative research: Meaning and characteristics - Methods: Case study, Ethnography, Phenomenology, Grounded Theory - Data collection: Interviews, Focus Groups, Document Analysis

Unit 5 - Research Reporting, Ethics, and Emerging Trends (12 hours)

Structure of research report/dissertation - Academic Writing and Referencing (APA 7th edition) - Plagiarism and Research Ethics - Use of ICT in research (AI tools, digital databases, referencing tools) - Publication and Dissemination of Research.

Reference Books:

1. Educational Research – L. R. Gay, Geoffrey E. Mills & Peter Airasian
2. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches – John W. Creswell
3. Research Methodology – C. R. Kothari
4. Research in Education – John W. Best & James V. Kahn
5. Statistics in Psychology and Education – Henry E. Garrett
6. Qualitative Inquiry and Research Design – John W. Creswell
7. Publication Manual of the American Psychological Association – American Psychological Association 7th Edition

Alignment with NEP – 2020

The course **Methodology of Education and Research (26ED555)** is designed in alignment with the transformative vision of the National Education Policy 2020, which emphasizes holistic, multidisciplinary, skill-based, and research-driven education.

1. Develops broad-based knowledge and interdisciplinary competence.
2. Promotes research aptitude, scientific temper, and innovation skills.
3. Develops analytical, problem-solving, and methodological skills.
4. Enhances digital competence and ICT integration in research.
5. Promotes ethical reasoning and professional integrity.
6. Strengthens critical thinking and decision-making abilities.
7. Supports learner autonomy and experiential learning.
8. Prepares learners for global academic and research environments.

COs and Bloom's Taxonomy Level (BTL) Mapping for 26ED555

Course Outcomes	On successful completion of the course, the students will be able to	BTL
CO1	Explain research paradigms, types, and processes in educational research	K1 & K 2
CO2	Apply appropriate research designs and sampling techniques	K 3
CO3	Analyze quantitative and qualitative data using suitable tools	K 4
CO4	Evaluate research studies and interpret findings critically	K 5
CO5	Design and conduct independent research with ethical considerations	K 6

Bloom's Taxonomy Level (BTL):- K1 and K2 – remembering and understanding, K3 - Applying, K4 – Analyse, K5 - Evaluate and K6- Create

Relationship Matrix

Course Outcomes	Programme Outcomes (POs)								Programme Specific Outcomes (PSOs)							Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	2	2	1	1	1	1	1	1	3	3	1	1	1	3	1	1.5
CO2	3	3	2	1	1	1	2	1	3	3	3	2	1	3	1	2.0
CO3	3	3	3	2	2	1	2	1	2	2	2	1	1	3	1	1.9
CO4	3	3	1	2	2	3	2	1	2	2	3	3	2	3	2	2.3
CO5	3	3	3	2	1	2	3	2	2	3	2	3	1	3	2	2.3
Total																2.0

Mean Score: 3 - High, 2 - Medium/Moderate, 1-Low

