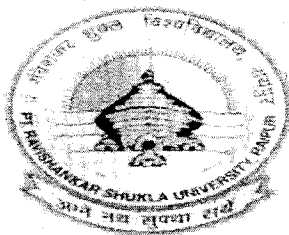


**PT. RAVISHANKAR SHUKLA UNIVERSITY RAIPUR (C.G.)**



***Syllabus for Ph.D. Course Work***

***in***

***Education***

**Session: 2023-24**

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*Syllabus for Ph.D. Course Work in Education*

Section –A

*Research Methodology, & Computer Application (60 marks)*

**M.M. 100**

**Unit – I Educational Research**

- Educational Research as a scientific Process: Meaning, need and nature of educational research, steps of research process.
- Types of educational research: historical, experimental and descriptive
- Qualitative and Quantitative Research
- Research Process
- Criteria for good research Planning of Research
- Selection of a problem for research.
- Formulation of the selected problems.
- Research Questions.

**Unit – II Related Literature and Hypothesis**

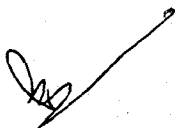
- Role of related literature in educational Research.
- Literature search procedure.
- Sources of literature.
- Planning of review work.

**Hypothesis Formation**

- Definition
- Characteristics
- Classification
- Statement of Hypothesis
- Testing of Hypothesis
- Concept of level of significance
- Degree of Freedom
- One tailed test and two tailed test.
- Types of Error – Type I and Type II

**Unit – III Sampling and Data Collection Sampling**

- Population and sample



- Definition and difference.
- Importance of sampling
- Sample size
- Sampling Error
- Preparing a questionnaire
- Test standardization Data Collection
- **Type of data**
- Methods and techniques of data collection
- Primary and Secondary Data

#### **Unit – IV Data Analysis**

- Parametric and Non Parametric Statistics
- Measures of Central Tendencies
- Percentile
- Correlation
- t – Test
- Chi – square
- Normal Probability and its applications
- Regression
- Multiple Regression
- Two way and Three way analysis of variance

#### **Unit – V Report writing and computer application**

- Planning of Report writing
- Significance of report.
- Steps of report writing
- Concepts of Bibliography and References.

#### **Computer Application**

- Applications of Computer in research
- Generating charts / graph in Microsoft Excel
- Power Point Presentation
- Use of SPSS in Educational Research



## *Syllabus for Ph.D. Course Work in Education*

### Section -B

#### *Research & Publication Ethics (40 marks)*

#### **Research and Publication Ethics (RPE) -I**

##### **RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)**

- Introduction to philosophy: definition, nature and scope, concept, branches
- Ethics: definition, moral philosophy, nature of moral judgments and reactions

##### **RPE 02: SCIENTIFIC CONDUCT (5hrs.)**

- Ethics with respect to science and research
- Intellectual honesty and research integrity
- Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
- Redundant publications: duplicate and overlapping publications, salami slicing
- Selective reporting and misrepresentation of data

##### **RPE 03: PUBLICATION ETHICS (7 hrs.)**

- Publication ethics: definition, introduction and importance
- Best practices / standards setting initiatives and guidelines: COPE, WAME, etc.
- Conflicts of interest
- Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types
- Violation of publication ethics, authorship and contributor ship
- Identification of publication misconduct, complaints and appeals
- Predatory publishers and journals

#### **Practice: Research and Publication Ethics (RPE) -II**

##### **RPE 04: OPEN ACCESS PUBLISHING (4 hrs.)**

- Open access publications and initiatives
- SHERPA/ROMEO online resource to check publisher copyright & self-archiving policies
- Software tool to identify predatory publications developed by SPPU
- Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc. Paper VI Research and Publication Ethics

##### **RPE 05: PUBLICATION MISCONDUCT (4hrs.)**

###### A Group Discussions (2 hrs.)

- Subject specific ethical issues, FFP, authorship
- Conflicts of interest
- Complaints and appeals: examples and fraud from India and abroad.

###### B Software tools (2 hrs.)

- Use of plagiarism software like Turnitin, Urkund and other open source software tools

##### **RPE 06: DATABASES AND RESEARCH METRICS (7hrs.)**

###### A. Databases (4 hrs.)

- Indexing databases
- Citation databases: Web of Science, Scopus, etc.

###### B. Research Metrics (3 hrs.)

- Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score
- Metrics: h-index, g index, i10 index, altmetrics

