



Krishnaguru Adhyatmik Visvavidyalaya, Nasatra, Barpeta, Assam

Department of Education

Ph.D Course Work Syllabus

Session-2024-25



Ph.D. Course Work Syllabus

Course Title and Code: Research Methodology (PHD-C-5014)

Credit: 04

Department: Education
Krishnaguru Adhyatmik Visvavidyalaya

Total Marks 100 (80+20=100)

Learning Objective: To instill in students an in-depth knowledge of Research Methodology and enable them to conduct research in a scientific manner.

Block-I: Introduction to Research

Unit-I: Research Approaches: Historical approach, Case study approach, Descriptive approach and Experimental approach.

Unit-2: Types of research: Pure research-applied research; categories of research: ex-post facto research-experimental research-field investigation research-survey research-evaluation research-action research.

BLOCK-II:

Unit-I: Selection and Formulation of Research Problems: Factors to be considered in selection of Research Problem. Steps in formulation of problem.

BLOCK-III:

Unit-I: Research Design: Components of Research Design; Framing of hypothesis and research question.

BLOCK-IV:

Unit-I: Basic Statistical Concept: Types of variables-Quantitative and Qualitative; Reliability and validity-assessing reliability and validity of variables; confidence level and determination of size of samples.

Unit-2: Types of Sampling: Random and Non-Random sampling and their various kinds.
Total number of class= $4 \times 14 = 56$ classes of 1 hour duration
Internal Assessment: 10 Marks: 10 Marks for 1 Sessional Examination

5 Marks: 5 Marks for submission of a write-up on any one of the units.

5 Marks: 5 Marks for presentation of the above write-up

Books recommended:

Text Books:

1. The Essential Guide to doing Research; Zina O' Leary; Vistar Publications (A division of Sage Publication) New Delhi.
2. Research Methodology; C.R. Kothari, New Age International Publications, 2nd Edition.
3. Research Methodology, The What and How of Project Assignment and Seminar Paper: Dr. Mukunda Sarma; Eastern Book House (FBH) Publications, Panbazar, Guwahati, Assam
4. Practice of Social Research; E.R. Babbie, Belmont, CA; Wads worth.

Reference Books:

- 1) Hand Book of Research Design and Social Measurement : D.C. Miller and N.J. Salkind, Sage Publications, London.
- 2) Qualitative Research Methods for the Social Science; Allyn and Bacon Boston, MA
- 3) Qualitative and Quantitative Approaches: Sage Publications, London.



Ph.D. Course Work Syllabus

Course Title and Code: Research and Publication Ethics (PHD-C-5022)

Credit: 02

Department: Education
Krishnaguru Adhyatmik Visvavidyalaya

Total Marks 50 (40+10=50)

Course structure

- The course comprises of six modules listed in table below. Each module has 4-5 units.

Modules	Unit title	Teaching Units
Theory		
RPE 01	Philosophy and Ethics	4
RPE 02	Scientific Conduct	4
RPE 03	Publication Ethics	7
Practice		
RPE 04	Open Access Publishing	4
RPE 05	Publication Misconduct	4
RPE 06	Databases and Research Metrics	7
	Total	30

Syllabus in detail

THEORY

- RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)**
 - Introduction to philosophy: definition, nature and scope, concept, branches
 - Ethics: definition, moral philosophy, nature of moral judgements and reactions
- RPE 02: SCIENTIFIC CONDUCT (5 hrs.)**
 - Ethics with respect to science and research

2. Intellectual honesty and research integrity
3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data

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

1. Publication ethics: definition, introduction and importance
2. Best practices/ standards setting initiatives and guidelines: COPE, WAME, etc.
3. Conflicts of interest
4. Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types
5. Violation of publication ethics, authorship and contributorship
6. Identification of publication misconduct, complaints and appeals
7. Predatory publishers and journals

PRACTICE

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

1. Open access publications and initiatives
2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies
3. Software tool to identify predatory publications developed by SPPU
4. Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

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

A. Group Discussions (2 hrs.)

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

B. Software tools (2hrs.)

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

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

A. Databases (4 hrs.)

1. Indexing databases
2. Citation databases: Web of Science, Scopus, etc.

B. Research Metrics (3hrs.)

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

References

- Birs, a.(2006). *Philosophy of Science*. Routledge.
- MacIntyre, Alasdair (1967) *A Short History OF Ethics*. London.
- P. Chaddah, (2018) *Ethics in Competitive Research: Do not get scooped; do not get plagiarized*, ISBN:978-9387480865
- National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). *On being*
- *a Scientist: A guide to Responsible Conduct in Researrh: Third Edition*. National Academies Press.
- Resnik, D.B. (2011). What is ethics in research 7 why is it important. *National Institute of Environmental*
- *Health Sciences*, 1-10. Retrieved from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>
- Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*, 489(7415), 179-179.
- <https://doi.org/10.1038/489179a>
- Indian National Science Acedemy (INSA), *Ethics in Science Education, Reserch and Governance* (2019),
- ISBN:978-81-939482-1-7. <http://www.insaindia.res.in/pdf/Ethics Book.pdf>



Ph.D. Course Work Syllabus

Course Title and Code: Krishnaguru Studies (KGS-5032)

Credit: 02 (Value Added Compulsory Paper)

Department: Education

Krishnaguru Adhyatmik Visvavidyalaya

Total Marks 50 (40+10=50)



Ph.D. Course Work Syllabus

Course Title and Code: Measurement and Statistical Analysis (PHD-EDN-5044)

Credit: 04

Department: Education
Krishnaguru Adhyatmik Visvavidyalaya

Total Marks 100 (80+20=100)

Course Objectives

The course is designed to:

1. Provide a comprehensive understanding of measurement concepts in educational research.
2. Enable scholars to apply statistical techniques for data analysis in their research.
3. Develop the ability to critically interpret quantitative data in educational contexts.
4. Equip scholars with advanced skills in using statistical software for research purposes.

Course Outcomes

By the end of the course, scholars will be able to:

1. Develop valid and reliable tools for measurement in educational research.
2. Analyze and interpret data using descriptive and inferential statistics.
3. Apply advanced statistical techniques in their research work.
4. Critically evaluate and present statistical findings in their doctoral dissertations.

Course Content

Unit I: Basics of Measurement and Scaling

- **Introduction to Measurement and Scaling:** Concept of measurement, types of measurement scales (nominal, ordinal, interval & ratio). Importance and application of measurement in educational research.
- **Scaling Techniques:** Likert scales, Thurstone scales, Semantic differential scales and Guttman scales.
- **Reliability and Validity:** Concepts, types, and methods of establishing reliability and validity of tools.

Unit II: Test Construction and Standardization

- Test construction. Test standardization. Item analysis: Item difficulty, discrimination index. Effectiveness of distracters. Development of Norms of a test.
- Application of Classical Test Theory (CTT) and Item Response Theory (IRT) in Educational Measurement.

Unit III: Descriptive and Inferential Statistical

- **Correlation and Regression Analysis:** Types of correlation: Pearson, Spearman. Simple and multiple regression analysis.
- **Hypothesis Testing:** Null and alternative hypotheses. Levels of significance and p-values.
- **Parametric Tests:** t-tests (independent and paired samples). Analysis of variance (ANOVA): One-way and two-way ANOVA.
- **Non-Parametric Tests:** Chi-square test and Mann-Whitney U test

Unit IV: Statistical Applications and Software-Based Analysis

- **Introduction to Statistical Software:** SPSS and Excel for data analysis.

- **Graphical Representation of Data:** Tables, charts and histograms for visualizing research findings.
- **Basic Multivariate Analysis:** Introduction to Factor Analysis and Cluster Analysis.

Evaluation Pattern

1. **Internal Assessment (20 Marks)**
2. **End-Semester Examination (80 Marks)**

Suggested Readings

1. Agresti, A., & Finlay, B. (2018). *Statistical Methods for the Social Sciences*. Pearson Education.
2. Field, A. (2018). *Discovering Statistics Using SPSS*. Sage Publications.
3. Gravetter, F. J., & Wallnau, L. B. (2021). *Statistics for the Behavioral Sciences*. Cengage Learning.
4. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis*. Pearson Education.
5. Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling*. Guilford Press.
6. Siegel, S., & Castellan, N. J. (1988). *Nonparametric Statistics for the Behavioral Sciences*. McGraw-Hill.
7. Mangal, S. K. (2019). *Statistics in Psychology and Education* (2nd Edition). PHI Learning Pvt. Ltd.
8. Garrett, H. E. (2008). *Statistics in Psychology and Education*. Surjeet Publications.
9. Best, J. W., & Kahn, J. V. (2006). *Research in Education* (10th Edition). Pearson Education.
10. Ferguson, G. A. (1981). *Statistical Analysis in Psychology and Education* (6th Edition). McGraw-Hill Education.



Department of Education

Ph.D. Course Work

Course Title and Code: Contemporary Concerns in Education (PHD-EDN-5054)

Credits: 4

Krishnaguru Adhyatmik Visvavidyalaya

Total Marks 100 (80+20=100)

Course Objectives

This course aims to:

1. Explore the evolving landscape of education in the context of global, national, and regional challenges.
2. Critically analyze contemporary issues, policies, and practices shaping education.
3. Develop advanced understanding and research insights into emerging concerns in education, particularly with respect to equity, technology, and sustainability.
4. Enable scholars to contribute to theoretical and practical solutions to pressing educational problems.

Learning Outcomes

By the end of the course, scholars will be able to:

1. Critically analyze the contemporary challenges in education at global, national, and regional levels.
2. Develop research insights to address concerns related to equity, diversity, and inclusion.
3. Apply knowledge of emerging technologies and sustainability in the context of education.
4. Contribute to academic discourse and policy-making in education.

Course Content

Unit I: Global and National Educational Challenges

1. Education in the 21st Century: Trends and Transformations
2. Globalization and its Impact on Education
3. Challenges of Access, Equity and Quality in Education
4. Policy Reforms in Indian Education: National Education Policy (NEP) 2020

Unit II: Inclusion and Diversity in Education

1. Inclusive Education: Concept, Policies and Practices
2. Gender and Education: Feminist Perspectives and Challenges
3. Education for Marginalized Communities: SC/ST, OBC and Minorities
4. Addressing Regional Disparities in Education

Unit III: Technology and Education

1. ICT in Education: Opportunities and Challenges
2. E-Learning, MOOCs and Digital Divide in Education
3. Artificial Intelligence (AI) and its Applications in Education
4. Ethical Issues in Technology-Driven Education

Unit IV: Education for Sustainability and Global Citizenship

1. Education for Sustainable Development (ESD): Concepts and Practices
2. Environmental Education and Climate Change Awareness
3. Peace Education and Global Citizenship
4. Role of Education in Achieving SDGs (Sustainable Development Goals)

Evaluation Scheme

1. **Internal Assessment (20 Marks)**
2. **End Semester Examination (80 Marks)**

Recommended Readings

1. **NEP 2020** Document, Government of India.
2. Amartya Sen – *Development as Freedom*.
3. Martha Nussbaum – *Creating Capabilities: The Human Development Approach*.
4. Paulo Freire – *Pedagogy of the Oppressed*.
5. UNESCO Reports on Education for Sustainable Development.
6. Sugata Mitra – *The Hole in the Wall: Self-Organising Systems in Education*.
7. Recent Articles and Journals from *EPW*, *Indian Journal of Education*, *Comparative Education Review*.



Department of Education

Ph.D. Course Work

Course Title and Code: Term Paper (PHD-EDN-5062)

Credits: 4

Krishnaguru Adhyatmik Visvavidyalaya

Total Marks: 50 (40+10)

Course Objectives:

- To enable Ph.D. scholars to develop a research-oriented mindset by engaging in a structured term paper.
- To facilitate an in-depth review of existing literature and secondary data analysis relevant to the scholar's Ph.D. research area.
- To enhance academic writing, critical thinking and presentation skills.
- To prepare scholars for rigorous academic discourse through viva voce.

Outcome:

- Upon successful completion, scholars will gain expertise in literature review, secondary data analysis and academic writing, preparing them for their Ph.D. research.

Course Structure & Guidelines

1. Selection of Topic

- The term paper should align with the scholar's Ph.D. research area.

2. Review of Literature

- Conduct a detailed literature review using books, journal articles, reports and other secondary sources.

- Identify relevant secondary data sources for analysis.
- Develop a conceptual framework based on literature.

3. Term Paper Writing

- The term paper should be 5,000-10,000 words (excluding references).
- Structure of the paper:
 1. **Introduction** – Background, research problem, objectives and significance.
 2. **Review of Literature** – Thematic analysis of existing studies.
 3. **Methodology** – Description of secondary data sources and analytical approach.
 4. **Findings & Discussion** – Interpretation of secondary data with theoretical insights.
 5. **Conclusion & Recommendations** – Summary, implications, and scope for further research.
 6. **References** – Proper citation in APA format.

4. Submission & Evaluation

- Final term paper submission deadline: **[To be Decided]**
- Evaluation will be based on clarity, depth of analysis and originality.

5. Presentation & Viva Voce

- Scholars will present their findings before a panel of faculty members.
- Viva voce will assess the scholar's understanding, analytical ability and research readiness.

Evaluation Criteria (Total Marks: 50)

1. **Term Paper (Written Submission)** – 40 Marks
2. **Presentation & Viva Voce** – 10 Marks
 - Clarity & effectiveness of presentation (5)
 - Ability to defend research arguments (5)

Recommended Reading References

Books

1. **Creswell, J. W.** (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). Sage Publications.
2. **Best, J. W., & Kahn, J. V.** (2016). *Research in Education* (10th ed.). Pearson.
3. **Bryman, A.** (2015). *Social Research Methods* (5th ed.). Oxford University Press.
4. **Mertens, D. M.** (2020). *Research and Evaluation in Education and Psychology: Integrating Diversity with Quantitative, Qualitative, and Mixed Methods* (5th ed.). Sage Publications.
5. **Neuman, W. L.** (2014). *Social Research Methods: Qualitative and Quantitative Approaches* (7th ed.). Pearson.
6. **Yin, R. K.** (2018). *Case Study Research and Applications: Design and Methods* (6th ed.). Sage Publications.
7. **Bogdan, R. C., & Biklen, S. K.** (2019). *Qualitative Research for Education: An Introduction to Theories and Methods* (6th ed.). Pearson.
8. **Punch, K. F.** (2016). *Developing Effective Research Proposals* (3rd ed.). Sage Publications.
9. **Cohen, L., Manion, L., & Morrison, K.** (2018). *Research Methods in Education* (8th ed.). Routledge.
10. **Kumar, R.** (2022). *Research Methodology: A Step-by-Step Guide for Beginners* (5th ed.). Sage Publications.

Additional Readings

Books on Literature Review & Writing Skills

1. **Hart, C.** (2018). *Doing a Literature Review: Releasing the Social Science Research Imagination*. Sage Publications.
2. **Ridley, D.** (2012). *The Literature Review: A Step-by-Step Guide for Students*. Sage Publications.

3. **Machi, L. A., & McEvoy, B. T.** (2016). *The Literature Review: Six Steps to Success* (3rd ed.). Corwin.
4. **Swales, J. M., & Feak, C. B.** (2012). *Academic Writing for Graduate Students: Essential Tasks and Skills*. University of Michigan Press.
5. **Booth, W. C., Colomb, G. G., & Williams, J. M.** (2016). *The Craft of Research* (4th ed.). University of Chicago Press.

Books on Secondary Data Analysis

1. **Dale, A., & Davies, R. B.** (2018). *Analyzing Social and Educational Data: A Guide for Researchers*. Routledge.
2. **Bishop, L.** (2018). *Using Secondary Data in Educational and Social Research*. Open University Press.
3. **Hakim, C.** (2019). *Secondary Analysis in Social Research: A Guide to Data Sources and Methods with Examples*. Routledge.