

M. PHIL (EDUCATION)

SYLLABUS

SSS C 321 ADVANCED RESEARCH METHODOLOGY

Credits: 5

Objectives

After the completion of this course student will be able to

1. understand the foundations of Educational Research
2. identify the sources of research problems and variables.
formulate hypotheses, design of Educational research and to make them understand different techniques of data collection.
3. familiarize with different methods and approaches of Educational Research.
4. understand the contemporary developments in Educational Research.
5. define the 'concept' research as acquisition of information.
6. comprehend the methods of acquiring information.
7. analyze the nature of enquiry.
8. describe the philosophical bases of research
9. identify the different paradigms.

UNIT I

Research as a process of acquisition of knowledge to understand phenomena and Solve problems – Methods of acquiring knowledge – Older methods – Modern Scientific method – Steps in Scientific Methods – Assumption underlying Scientific Method - Theory building – Nature , Type and functions of theories.

UNIT II

Nature of Enquiry – Search for Truth, Social reality Positivism – Understanding Natural and Social phenomena – Physical and Social reality – Ontological, Epistemological, Methodological and Human related assumptions – the Objectivist and Subjectivist polarization.

UNIT III

The Philosophical bases of research Positivistic and Anti-Positivistic movements – Phenomenology, Symbolic interactions – Ethno-methodology - Feminist Research and Mixed Research– Ethics of Educational Research.

UNIT IV

Scientific Research Methods

- a) Hypotheses for Problem Solving – Construction and Confirmation of Hypothesis – logic of Hypotheses Testing – Null Hypothesis and its significance – Testing Hypothesis of different types.
- b) Experimental research – Design with and without control – Purpose and Methods of Control – Factors to be controlled designs with minor, Partial and rigorous control –

Validity of Designs – Internal and External validities - Quasi Experiments – Single Case research

UNIT V

Humanistic research Methods: Case Study Method – Critical Theory Model – Ethnographic research methods – Hermeneutics – Oral History Method.

Policy Researchers: Policy Oriented Researches – Legitimatory Research – Participatory Research.

References

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- 20)Mc. Kernan, James. (1991). Curriculum Action Research – A Handbook of Methods and Resources for the Relative Practitioner, London: Kogan Page.
- 21)Nisbet (ed.). (1985). Research, Policy and Perspective. London: Kogan Page.
- 22)Peokewits, T. (1984). Paradigm and Ideology in Educational research. London: Palmer Press.

- 23) Polkinghorne, D. (1983). *Methodology for Human Sciences: Systems of Enquiry*. Albany: State University of New York Press.
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- 26) Swami. Satprakashananda. (1974). *Methods of Knowledge*. Calcutta

SSC 322 ADVANCED EDUCATIONAL STATISTICS Credits: 5

Objectives

After the completion of this course student will be able to

1. understand the need for sample and sampling procedure
2. explain the theory behind statistics.
3. choose appropriate statistical techniques for the analysis of data collected
4. use and interpret the results on analysis.
5. acquire the skill in using computer for data analysis.
6. illustrate simple statistical analysis using computer.

Unit I

Sampling Procedures; Probability and Non-Probability based effective Sample Size – Sampling Errors.

Unit II

Univariate Descriptive Analysis; Measures of Central Tendency, Measures of Variability, Coefficient of Variation. Normal Probability Distribution and its applications.

Unit III

Differential Analysis – Critical Ratio – ANOVA – One Way, Two Way.

Unit IV

Correlational Analysis - Measures of Correlation – Pearson, Rank, Biserial, Point Biserial, Phi-Coefficient, Terachoric – Partial Correlation – Simple Linear Regression.

Unit V

Multivariate Analysis:

- i. Relationship Multiple R; Canonical R.
- ii. Group Differences: ANOVA, Factorial ANOVA; One Way ANOVA, Factorial MANOVA; MANCOVA.

- iii. Prediction of Group Membership, Discriminant function, Factorial Discriminant function.
- iv. Structure; Principal Component, Factor Analysis.
- v. Meta Analysis, Multilevel Analysis, Path Analysis, Profile Analysis, Correspondence Analysis.

Note: What is expected is an understanding of the theory behind the Statistics, their uses and Interpretation. Actual computations are not necessary for the Unit V. The purposes and the functions of the Statistics and the Methods are to be clearly understood.

References

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3. Denzin, Norman K. and Lincoln. Y vona S. (1994). Hand Book of Qualitative Research. New Delhi: Sage Publications.
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SSS E 321 MANAGEMENT OF EDUCATION Credits : 5

Objectives

After the completion of this course student will be able to

1. understand the basic concepts of Educational Administration and Management.
2. understand the various approaches to the management theory.
3. acquire necessary knowledge and expertise of the principles and procures of Educational Administration and Management.

4. develop an understanding and appreciation of the role of different agencies of Educational Administration.
5. develop the requisite knowledge and skills for educational planning and institutional planning.
6. understand contemporary developments in Educational Management, Planning and finance.
7. comprehend the concept and principles of management.
8. acquire knowledge and skills for Educational and Institutional Planning.
9. develop the ability to apply the modern management techniques in the work of existing educational system.
10. explain the functions of leadership role as change agent.
11. develop the skills to resolve conflicts.
12. optimize student participation in curricular and co-curricular activities.
13. manage the institutional and instructional processes towards the attainment of the functional objectives.
14. develop the skill in resource Management/ maximize the use of available resources.

Unit I

Educational Management: The need to modernize educational administration - Definition and Scope of Management – Functions of Management – Management and ideology– Management and decision making – Management and Administration – The problem of definition.

Unit II

Educational Planning : The concept of Educational Planning – Basic Approaches to Educational Planning – Planning, Programming, Budgeting and Control. Institutional Planning – the concept, scope and objective of Institutional Planning – the need for Institutional Planning – Basic characteristics of Institutional Planning – steps involved in the preparation, implementation and evaluation of Institutional planning.

Unit III

Application of modern management techniques to educational administration – Decision making and problems solving – Systems approach to educational change.

Unit IV

Educational Manager as a change agent and as a leader – Facilitator of Change – Factors affecting change. Management as communication system – decision making process – Motivation and participation.

Unit V

Resource management – Management of Human, Material and Financial resources – Management of Personnel – teaching and non teaching in organization – Institutional climate – group dynamics. Management of students – admission – Participation in curricular

and co-curricular activities– Management of student conflicts – disciplinary problems. Management of learning process – learning resources – time tabling – classroom management – class room climate – management of examination.

References

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SSS E 322 RESEARCH DATA ANALYSIS USING COMPUTER SOFTWARE

Objectives

After the completion of this course student will be able to

1. access and prepare data.
2. define data
3. label variables.
4. develop skill in data transformation
5. identify and use the different steps for descriptive statistics.
6. use the computer software for the calculation of bi-variate statistics.
7. apply the computer software for the differential, relational and non parametric and interpret the results.
8. enrich the knowledge base to identify and make prediction using the computer output.
9. develop the skill in use of appropriate statistical techniques.
10. develop the skill of drawing charts and scatter plots using computer software.
11. instill confidence in using the statistical software.
12. acquaint strong statistical base.
13. analyze the differences in assumptions of different statistical techniques.
14. interpret the statistical results accurately and appropriately.

UNIT I Data access, data preparation

1. Excel interface
2. Data editor
3. Data import
4. Define Variables Properties tool
5. Identify Duplicate cases tool
6. Copy Data Properties tool

UNIT II Data Transformations

1. Compute new variables using arithmetic, Cross-case, date and time, logical, Missing-
2. Value random-number and Statistical or string functions.
3. Recode string or numeric values
4. Recode values into consecutive integers
5. Create conditional transformations
6. Using “Do if,” “Else if” “Else” and “End if” statements
7. Data Transformation functions

UNIT III Descriptive statistics

1. Cross tabulations
2. Frequencies
3. Descriptive
4. Explore

UNIT IV Bivariate statistics

1. Means
2. t-tests (Two-Sample Tests)

UNIT V Correlation

1. Bivariate
2. Partial

UNIT VI Non-Parametric tests

1. Tests for one sample
2. Tests for two related samples
3. Tests for two independent samples

(Chi-Square, Contingency, Kendall’s Coefficient, Kendall’s Tau, Sign Test, Runs Test, Samples K-S, Mann-Whitney U Test, Kruskal-Wallis One Way ANOVA, Friedman Two Way ANOVA, Wilcoxon Test, Rank Correlation).

UNIT VII Prediction for numerical outcomes and identifying groups

1. Analysis of variance (ANOVA) – One Way, Two Way and Three Way
2. Linear regression
3. Logistic Regression
4. Principal components Analysis
5. Factor analysis
6. Cluster analysis-K-Means-Hierarchical
7. Discriminant Analysis
8. Reliability Analysis

UNIT VIII Reporting

1. **Categorical charts:** Bar – Line – Area – Pie – Box plot - Stem – Leaf

2. **Scatter plots:** Simple, grouped, scatter plot matrix – Fit lines – Dot charts - Histograms – Multiple use charts

Practicum

Each Unit has to be discussed / taught with demonstration followed by student practical. At the end of the course a Report should be submitted by each student showing the evidence of practical done. The report has to be internally valued for the maximum of 25 marks. The theory examination (External) has to be valued for 75 marks.

1. The Research Data Analysis may be taught by using the statistical packages Available to the college. To mention a few SPSS, STATISTICA, OPENSTA- T4, NCSS STATPAC, MINITAB, VISTA etc.

2. Some of the free statistical packages can be downloaded from the website: www.freestatistics.tk or <http://freestatistics.altervista.org/stat.php>. The statistical packages. OPENSTAT4 is among them. This package is free for personal use. The operating manual and statistics book are also available free of cost. (Courtesy Prof. William G. Miller, Program originally developed by him, whose E-Mail address is: openstat a msn.com).

3. All the statistical packages have their own manual and Built – in Statistical Moduels / Tutorial / Books for quick reference.

References:

1. Antonius, Rachad. (2003). Interpreting Quantitative Data with SPSS. New Delhi: Sage Publications India Pvt. Ltd
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SSS E 323 Related to Area of Specialization in Dissertation

Credits: 5

SSS C 323 Dissertation and Viva Voce

Credits: 21

Note: Among the Courses SSS E 321 and SSS E 322 only one will be offered depending up on the availability of faculty and aspirants.
