# GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR (C.G.)

# **DEPARTMENT OF EDUCATION**

# **Course Work Ph.D. (Education)**

### Paper-I: Research Methodology

# **Objectives**

- 1. To develop awareness about the purposes and the thrust areas of educational research.
- 2. To train the students to formulate and test the hypothesis.
- 3. To train the students to scientifically draw sample for research studies.
- 4. To develop understanding about the various perspectives of research in education.
- 5. To develop various skills required for the application of basic statistical techniques.
- 6. To sharpen the abilities of analyzing information, documentation and articulation of ideas.

### **Course Contents**

#### **Unit I – Fundamentals of Research**

- a) Approaches of acquiring knowledge: Deductive, Inductive and Scientific
- b) Educational Research: Meaning, importance, its role in improving educational practices, its limitations.
- c) Thrust areas of educational research
- d) Ethics of educational research

# <u>Unit II – Approaches and Types of Educational Research – I</u>

- a) Quantitative and qualitative approach
- b) Fundamental, applied and action research
- c) Brief overview of qualitative research: Ethnographic research
- d) Historical research: Primary and secondary sources of data, external and internal criticism

#### <u>Unit III – Approaches and Types of Educational Research – II</u>

- a) Experimental research: Designs, internal and external validity and threats
- b) Descriptive research: Survey, Ex-post facto, Case study
- c) Longitudinal and cross sectional approaches in educational research

#### Unit IV – Fundamentals in Inferential Educational Research

- a) Brief overview of sampling: Population and sample, sampling frame, sampling error and bias, probability and non-probability sampling methods
- b) Brief overview of hypothesis: Meaning, characteristics and types
- c) Concept of hypothesis testing: Level of significance, confidence interval, Type-I and Type-II errors, One tailed and two tailed test

# <u>Unit V – Basic Statistics</u>

- a) Difference between Parametric and Non-parametric test
- b) t- test
- c) One way Analysis of Variance F-test (conceptual inputs)
- d) Chi-square test
- e) Median test
- f) Mann-Whitney test for two independent samples

# **References**

- 1. Aggarwal, Y. P. Statistical Methods. New Delhi, Sterling Publishers Pvt. Ltd. 1998.
- 2. Best, J.W. & Kahn, J.V. Research in Education. New Delhi: PHI. 2009.
- 3. Clark M. Phenomenological Research Methods, New Delhi: Sage, 1994.
- 4. Cohen, M. R. Introduction to logic and scientific method. London: Roultedge & Kegan Paul, 1964
- 5. Edwards, A. L. *Experimental designs in psychological research*. New Delhi: Amerind Publishing Co., 1953
- 6. Gage, N. L. (Ed.). Handbook of research in teaching. Chicago: Ran McNally and Co. 1963
- Garrett, H. E. Statistics in psychology and education. Bombay: Allied Pacific Pvt. Ltd. 1962
- 8. Good, Barr & Scates. *Methodology of Educational Research*, New York Appleton Crofts, 1962
- 9. Guilford, J. P. Fundamental statistics in psychology and education. New York: McGraw Hill Book Co. 1965
- 10. Gupta, S. P. Statistical Methods, New Delhi, S. Chand & Sons, 1996
- 11. James H. M. and Schomachers, S. *Research in Education: A conceptual Introduction*, New York: HarperCollins, 1989.
- 12. Kerlinger F. N. Foundations of behavioral research. New Delhi: Surject Publications, 1978
- 13. Kothari, C. R. Quantitative Techniques, New Delhi: New Age Publications, 1998.
- 14. Koul, L. Methodology of Educational Research, New Delhi: Vikas Publications, 1998
- 15. Kurtz, A. K. & Mayo, S.T. *Statistical Methods in Education and Psychology*, New,Delhi: Narosa Publishing House, 1980
- 16. Martyn H. The Dilemma of Qualitative Method, London: Routledge, 1989.
- 17. Mouly, G. J. The science of educational research. New Delhi: Eurasia Publishing House Pvt. Ltd. 1964
- 18. Siegal, S. Non-Parametric statistics for behavioral sciences. New York: McGraw Hill. 1956
- 19. Singh, A. K. *Tests, Measurement and Research Methods in Behavioural Sciences*, Patna: Bharati Bhawan, 2002.
- 20. Togrerson, W. S. Theory and methods of scaling. New York: Willey 1965
- 21. Travers, R. M. W. *An Introduction to Educational Research*, New York: Mac Millan Publishing Co., Ince. 1978
- 22.Tuckman, B. W. *Conducting Educational Research*, New York: Harcourt Brace Jovanovich, Inc. 1972.
- 23. Tuckman, B. W. *Analysing and Designing Educational Research*, New York, Harcourt Brace Jovanovich, Inc., 1978
- 24. VanDalen, B. & Meyer, W. J. *Understanding Educational Research*, New York, McGraw Hill C., 1979
- 25. Wiersna, W. & Jurs, S.G. Research Methods in Education An Introduction, New Delhi: Pearson India

# Paper-II: Skill Development in Educational Research

# **Objectives**

- 1. To develop the skill of measuring a construct.
- 2. To develop the skill of selection and construction of an appropriate tool for educational research.
- 3. To enable students to organize and interpret the scores.
- 4. To develop various skills required for the application of basic statistical techniques.
- 5. To aware the students about the applications of computer in educational research.

#### **Course Contents**

# <u>Unit I – Basics of Measurement</u>

- a) Brief overview of Variables: Meaning and types
- b) Brief overview of Scales of Measurement
- c) Brief overview of Tests and their types
- d) Selection of an appropriate test for educational research

### Unit II - Characteristics of a Good Tool

- a) Objectivity
- b) Usability
- c) Reliability
- d) Validity
- e) Norms

#### **Unit III – Test Construction**

- a) Planning of the test
- b) Item writing
- c) Item analysis
- d) Establishing Reliability, validity, norms and preparation of manual

# **Unit IV - Data Collection and Interpretation**

- a) Brief overview of techniques: Observation, Interview, Socio-metric technique, Questionnaire, Schedule, Rating scale
- b) Scoring: Raw score, Standard scores (Z score, T score, C score)
- c) Content analysis
- d) Use of computer in data analysis

#### <u>Unit V – Basic Statistics</u>

- a) Brief overview of Normal Probability Distribution
- b) Co-relation: Bi-serial, Point Bi-serial, Phi-coefficient, Tetra-choric

#### **References**

- Aggarwal, Y. P. Statistical Methods. New Delhi, Sterling Publishers Pvt. Ltd. 1998.
- 2. Anastasi A. Psychological Testing. (4th edition), New York: McMillan Pub Co, 1976.
- 3. Cronbach L. J. *Essentials of Psychological Testing*. (3rd edition), New York: Harper & Row publishers, 1970.
- 4. Ebel R. L. & Frisbei D. A. *Essentials of Educational Measurement*, New Delhi: Prentice Hall, 1986.
- 5. Edwards A. L. *Techniques of Attitude Scale Construction*, Bombay: Feiffer & Simens Private Ltd, 1975.
- 6. Freeman F. S. *Theory and Practice of Psychological Testing*, (3rd edition), New Delhi: Oxford & IBH Pub. Co., 1976.
- 7. Garrett, H. E. Statistics in Psychology and Education. Bombay: Allied Pacific Pvt. Ltd. 1962.
- 8. Guilford, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw Hill Book Co. 1965.
- 9. Guilford, J. P. Psychometric Methods, New York: Mc-Graw Hill.
- 10. Gupta, S. P. Statistical Methods, New Delhi: S. Chand & Sons, 1996.
- 11. Harper (Jr.) A. E. & Harper E.S. *Preparing Objective Examination, A Handbook for Teachers, Students and Examiners*, New Delhi: Prentice Hall, 1990.
- 12. Kurpius, S. R. & Stafford, M. E. *Testing and Measurement*, New Delhi: Sage Publication, 2006.
- 13. Kerlinger F. N. Foundations of Behavioral Research. New Delhi: Surject Publications, 1978.
- 14. Kothari, C. R. Quantitative Techniques, New Delhi: New Age, 1998.
- 15. Koul, L. Methodology of Educational Research, New Delhi: Vikas Publications, 1998.
- 16. Kurtz, A. K. & Mayo, S.T. *Statistical Methods in Education and Psychology*, New, Delhi: Narosa Publishing House, 1980.
- 17. Linn R. L. & Gronlund, N. E. *Measurement and Assessment in Teaching*. New Delhi Pearson Education Pvt. Ltd. 2003.
- 18. Sax G. *Principles of Educational Measurement and Evaluation*, California, Woodworth Publishing, 1974.
- 19. Siegal, S. Non-Parametric Statistics for Behavioral Sciences. New York: McGraw Hill. 1956.
- 20. Singh, A. K. Tests, Measurement and Research Methods in Behavioural Sciences, Patna: Bharati Bhawan, 2002.
- 21. Thorndike R.L. & Hagen E. P. Measurement and Evaluation in Psychology and Education, (4th edition), New York: John Wiley & Sons, 1977.
- 22. Togrerson, W. S. *Theory and methods of scaling*. New York: Willey, 1965.
- 23. Tuckman, Bruce W. *Conducting Educational Research*, New York: Harcourt Brace Jovanovich, Inc. 1972.
- 24. Tuckman, B.W. *Analysing and Designing Educational Research*, New York, Harcourt Brace Jovanovich, Inc., 1978.
- 25. Vernon, P.E. Personality Test and Assessment, London, Methuen Co, 1962.

### Paper-III: Optional (Any one out of following four)

- A. Teacher Education
- **B.** Educational Policy, Planning, Supervision and Management
- C. Advanced Educational Technology
- **D.** Education and Curriculum for Exceptional Children

## **Paper-III: Teacher Education**

### **Objectives**

To enable the students to understand about the

- a) Concept need and scope of teacher education.
- b) Various techniques of higher learning.
- c) Purposes of in-service education of school teachers.
- d) Various trends in teacher education program.
- e) Technique of evaluation of the effectiveness of teacher education program.

# **Course Contents**

# **Unit I - Introduction of Teacher Education**

- a) Meaning of Teacher Education and Teacher Training.
- b) Need of Teacher Education and its scopes.
- c) Aims and Objectives of Teacher Education at:
  - > Elementary level
  - ➤ Secondary level
  - ➤ College level
- d) Structures, Models and Courses of Teacher Education at different levels
- e) Current problems in teacher education

#### **Unit II - Techniques for Higher Learning**

- a) Conference Technique
- b) Seminar Technique
- c) Symposium Technique
- d) Workshop Technique
- e) Panel Discussion

# **Unit III- In-service Education of Teacher**

- a) Need and purpose of in-service education.
- b) Teacher education through distance mode.
- c) Existing structures and Models.
- d) Current Problems
- e) Critical evaluation of existing in-service teacher education.

# **Unit IV - Innovative Practices in Teacher Education**

- a) Meaning of feedback, device and purpose.
- b) Micro-teaching
- c) Simulated social skill training,
- d) Team teaching
- e) Interaction analysis technique

# Unit V - Evaluation of Effectiveness of Teacher Education Programmes

- a) Measurement and Evaluation.
- b) Types of Evaluation
- c) Purposes of Programme Evaluation.
- d) Objectives & Criteria of Evaluation of Teacher Education Programme.
- e) Techniques of Evaluation of Teacher Education Programme

#### References

- Allen, Dwight & Ryan, Kevin (1969): Microteaching Mass Addison -Wesley
- 2) Bloom, B.S. and et. al. (1971) Hand book of formative and summative Evaluation of student learning. New York: MCGraw Hill Book Co.
- 3) Buch, M.B. and Palasane, M.M. (1968) Readings in In-Service Education, Sardar Patel University, Vallabh Vidya Nagar.
- 4} Combs, Arther W. (1965) the Professional Education of Teachers: A Perceptual view of Teacher Education, Boston: Allyn & Bacon.
- 5) Jagaria, N.K. & Singh, Ajit (1984) Core Teaching skills Micro-teaching approach, New Delhi, NCERT.
- 6) Khan, M.S. (1983) Teacher Education in India & Abroad. New Delhi, Ashish Publishing House.
- (7) Mukherji, S.N. (1968) Education of Teachers in India, New Delhi: S. Chand&Co.
- (8) Siddiqui, M. Akhtar (1991) Inservice Teacher Education, Ashish Publishing House, New Delhi.
- (9) Singh L.C. (1990): Teacher Education in India- A Source Book, New Delhi, NCERT.
- (10) Singh, R.P. (1993) The challenges of Tomorrow AProfile of further Teacher Education, New Delhi Sterling Publisher Private Ltd.

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### Paper - III (Educational Policy, Planning, Supervision and Management)

# **Objectives**

- 1. To enable the student teachers to understand basic concepts of educational administration and management.
- 2. To enable the student teachers to acquire necessary knowledge and expertise of the Principles and procedures of education administration and management.
- 3. To develop an understanding and appreciation of the role of different agencies of educational administration.
- 4. To enable the student teachers to understand how different branches of education are managed and administered.
- 5. To enable the student teachers to understand and appreciate various aspects of educational planning and finance.

#### **Course Contents**

### Unit I - Policy and Commissions on Education

- a) National Policy on Education
- b) Recommendations of various commissions in the context of
  - Universalization of elementary education
  - Secondary education
  - University education

### **Unit II - Educational Planning**

- a) Meaning and nature of educational planning
- b) Need of educational planning in India
- c) Characteristics of educational Planning
- d) Approaches of educational planning
- e) Kinds of educational planning, process and techniques of educational planning
- f) Administrative machinery for educational planning

#### **Unit III - Leadership in Educational Organization**

- a) Meaning, concept and nature of leadership
- b) Theories of leadership and style of leadership
- c) Measurement of leadership
- d) Organizational climate: Its meaning, nature, measurement, researches in organizational climate

#### **Unit IV - Management of conflict in Educational Organization**

- a) Meaning and nature of management conflict
- b) Types of conflict and sources of conflict
- c) Dynamics of conflict, management of conflict

#### **Unit V – Educational Inspection and Supervision**

- a) Meaning and nature of educational inspection and supervision
- b) Difference between inspection and supervision
- c) Scope and functions of educational supervision

- d) Principles of good supervision
- e) Operative and evaluating supervision programme

#### References

- 1) Aggarwal, J. C. (1972) Educational Administration Inspection, Planning & Financing in India, Arya Book Depot, New Delhi.
- 2) Bhatt, B.D. & Sharma, R.C. (1992) Education Supervision. Kanishka Publishing House, New Delhi.
- 3) Freeman, H.E. and Rossi, Peter H. (1989) Evaluation A system approach. Sage publication. London.
- 4) Gadgil, A.V. (1982) Supervision in Education, Shubhada Saraswati Publications, Pune.
- 5) Goyal, J. C. (1975) Administration of Education in India. Raj Prakashan, New Delhi.
- 6) Jagannath Mohanty (1990) Educational Admnistration supervision & school management. Deep & Deep Publications, New Delhi.
- 7) Kapoor, M.M. (1992) Institutional Planning Concepts processes & Techniques, NIEPA, New Delhi.
- 8) Khanna, K.K. & Sandhya Tandon (1985) Executive Decision Making. National Publishing House, New Delhi.
- 9) Kochhar, S.K. (1981). Successful Supervision & Inspection, sterling Publishers, New Delhi
- 10) Shukla, D.D. (1983) Administration of Education in India, Vikas Pubishing House, New Delhi.
- 11) Shull, F. S. Delbecg, A.L. & Cumming, L. (1970) Organizational Decision Making, New York, McGraw Hill.
- 12) Tanner, Damiel & Lawrel Tanner (1987) Supervision in Education, Problems and Practices, MacMillian Publishing Co. New York.

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# Paper-III (Advanced Educational Technology)

#### **Objectives**

- 1. To familiarize the students about the concept and scope of Educational Technology.
- 2. To acquaint the students with theories relevant to Educational Technology.
- 3. To train the students in developing instructional materials.
- 4. To acquaint the students with Systems approach in education.

# **Course Contents**

### **Unit I - Educational Technology and System Approach**

- a) Education Technology definition, meaning, scope, and relevance to present day education
- b) System Approach definition, characteristics and parameters of a system, models of system approach, system approach in education

#### **Unit II – Instructional Aids**

- a) Role of audio-visual aids in effective teaching learning, types and classification of AV aids
- b) Projected aids and non-projected aids specific purposes & usages
- c) Role of teacher in software production criteria for selection of appropriate media and methods for instructional purposes
- d) Mass media for formal, non formal, informal education

# <u>Unit III - Programmed Instruction</u>

- a) Meaning, concept and principles of programmed instruction
- b) Types and Steps in PLM structuring psychological principles, its application in the area of educational technology such as PSI- Keller Plan.

#### **Unit IV – Educational Television**

Principle and application of T.V. and its kinds and varieties - as instructional media - ETV - use of Video technology for learning - TV in Distance learning - UGC & IGNOU programmes - INSAT communication for education

# **Unit V - Computers in Education**

- a) An introduction to Computer, its concept and principles, Computer accessories and their specific function, basic information on languages
- b) Computer Assisted Instruction for Individualization. Computer Managed Instruction, computers in offices automation, interactive Video for learning

# **References**

- 1) Bhushan, S,: Educational Technology. Agra: Vinod Pustak Mandir, 1986.
- 2) Joyce, B. and Weil, M.: Models of Teaching. New Delhi: Prentice Hall of India Pvt. Ltd. 1985.
- 3) Kulkarni, S.S.: Introduction to Educational Technology. New Delhi: Oxford and IBH, 1986
- 4) Mangal, S.K.: Educational Technology, Ludhiana: Prakash Brothers, 1986
- 5) Mohanty, J.: Educational Broadcasting. New Delhi: Sterling Publishers, 1984.
- 6) Puckiams, S.: Curricular Invovations and Educational Technology. Delhi: Doaba House, 1986.
- 7) Sampath, K. et al.: Introducing to Educational Technology. New Delhi: Sterling Publishers, 1981.
- 8) Sharma, A.R.: Educational Technology. Agra: Vinod Pustak Mandir, 1985.
- 9) Sharma, R.A.: Programmed Learning. Meerut: Loyal Book Depot, 1982.
- 10) Sharma, RA: Educational Technology. Meerut: Modern Publishers, 1985.

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# Paper-III (Education and Curriculum for Exceptional Children)

# **Objectives**

The student after going through this curriculum should be able:

- a) To grasps the meaning, concept and modalities of identification of various types of (students who are different than majority or are) exceptional learners.
- b) To understand various educational intervention programmes for meeting the needs of exceptional learners.
- c) To familiarize with various strategies and approaches for promotion of education among persons with disabilities.
- d) To know different types of curricula keeping the concepts and problems of exceptional children at the centre of the learning process.

# **Course Contents**

# **Unit I- Introduction**

- a) Exceptional Children Concept & types
- b) Concept of impairment, disability and handicap
- c) Concept and need of special education for exceptional children
- d) Process of special education identification, individualized education programme(IEP), least restricted environment(LRE), evaluation

# **Unit II- Introduction to Various Disabilities**

Definition, classification, and causes of:

- a) Learning Disability
- b) Hearing Impairment
- c) Visual Impairment
- d) Mental Retardation

# **Unit III- Concept of Curriculum**

- a) Curriculum definition and its need
- b) Curriculum process and its stages
- c) Types of curriculum subject-centered, learner-centered, activity- centered and integrated curriculum
- d) Formative and summative evaluation of curriculum

# **Unit IV- Educational Approaches-I**

a) Approaches to curriculum—curriculum differentiation, acceleration, enrichment, curriculum compacting, interdisciplinary instruction, internship & mentorship programme

- b) Individualized education programme: concept and need
- c) Early identification: need and importance
- d) Enrichment triad and Revolving door identification model

## **Unit V- Educational Approaches-II**

- a) Approaches to special education Special schools, integrated schools, inclusion, normalization, main-streaming
- b) Models and forms of integration
- c) Advantages and disadvantages of integration
- d) Rehabilitation of children with special needs meaning of rehabilitation, a brief introduction to Persons with Disabilities (PWD) Act, Rehabilitation Council of India (RCI), various national institutes of India for disabled.

# **References:**

- 1. Basu, Durga Das (1993). Introduction to the Constitution of India. PHI, New Delhi
- 2. Daniel, P. Hallahan & James, M. Kauffman (1991). Exceptional Children: An Introduction to Special Education. Allyn and Bacon, Boston
- 3. Dash, B.N. (2007). Curriculum planning and development. Dominant Pub. New Delhi
- 4. Deborah Deutsch Smith (1998). Introduction to Special Education. Allyn and Bacon, Boston
- 5. Erickson. H. Lynn (1988), Concept based curriculum Instruction: Teaching beyond the Facts, Crown Press, California
- 6. Glasgow Neel, A. (1996), New Curriculum for New Times, A Guide to Student- centered, Problem based Learning, Crown Press, California
- 7. Government of India (1986). National Policy on Education, 1986. MHRD, New Delhi
- 8. Government of India (1992). Programme of Action. MHRD, New Delhi
- 9. Smith, TEC, Polloway, EA, Patton, JR, & Dowdy, CA (2001). Teaching students with special needs in inclusive settings. Allyn and Bacon, Boston
- 10. William L. Heward (2000). Exceptional Children: An Introduction to Special Education. Prentice Hall Inc.