

Solapur University, Solapur
(Common Paper for Faculty of Education)
(w.e.f. June 2016)

Paper-IST

RESEARCH METHODOLOGY AND INFORMATION
COMMUNICATION TECHNOLOGY

Unit 1 : Educational Research

- a) Research of Scientific thinking
- b) Scientific Method
- c) Methods of acquiring knowledge
- d) Errors in Conducting Research

Unit 2 : Qualitative and Quantitative Research

- a) Qualitative Research: Nature, Need and Organization
- b) Quantitative Research: Nature, Need and Organization
- c) Review of Related Research
- d) Standardization of the Research Tools

Unit 3 : Statistics in Research

- a) Bivariate Statistics, Means, t-test, F-test, ANOVA
- b) Correlation : 1) Bivariate, ii) Partial
- c) Linear regression
- d) Factor analysis

Unit 4 : Use of ICT in Educational Research

a) e-information

- (i) Transformation in financial information
- (ii) Information project
- (iii) Selected Related Research

b) e-book

- (i) Meaning
- (ii) Formats
- (iii) e-reader application

c) **e-submission**

(i) Meaning

(ii) Role of e-submission in Research

Unit 5 : Components of Educational Research

a) **Impact factor**-Calculation, use, other measures

b) **Patents**-Agencies, National / International, Procedure for filling

c) **h-index**-Scholar h-index calculator, h-graph, h-number, refection on the h-index

d) National/ International Publications-i) ISSN Journl's, ISBN Books

Books Recommended

1. Agrawal, J.C.: *Introduction to Education Research*
2. Best, J.W., Khan, V.: *Research in Education*
3. Garrett: *Statistics in Psychology*
4. Entwistle, N.J. (1974). *The Nature of Educational Research*, Educational studies. A Third Level Course Methods of Educational Enquiry Block. The Open University Press Walton Hall, Milton Keynea
5. Fern, Edward, F. (2001), *Advanced Focus Group Research*, New Delhi, Sage Publications Indian Pvt. Ltd.
6. Kothari, C.R.: *Research Methodology, Methods and Techniques*
7. Mariampoliski II (2001), *Qualitative Market Research- A Comprehensive Guide*, New Delhi, Sage Publication India Pvt.Ltd.
8. Mouly, George, (1964). *The Science of Educational Research*, New Dlhi, Eurasia Publishing House.
9. Thomas, Black (2001). *Understanding Serial Science Research*, New Delhi, Sage Publications India Pvt.Ltd.
10. Wikipedia: encyclopedia-website

SOLAPUR UNIVERSITY, SOLAPUR
SYLLABUS OF Ph.D. COURSE WORK IN PHYSICAL EDUCATION
INTRODUCED FROM THE ACADEMIC YEAR JULY 2016 SUBJECT TO
MODIFICATION THAT WILL BE MADE FROM TIME TO TIME

Paper-IIND

RECENT TRENDS IN PHYSICAL EDUCATION AND SPORTS
SCIENCES

Unit 1 : Research Institutes in Physical Education and Sports Sciences

- a) Research Institutes in Physical Education and Sports Sciences in India
- b) Minor Research Project, Area, Funding, Agencies
- c) Major Research Project, Area, Funding, Agencies
- d) International Project, Procedure, Design, Area and Its, Agencies

Unit 2 : Socialization through Physical Education

- a) National and international intergration through Sports
- b) Role, scope, limitation of women in sports
- c) Yogic practices for social welfare
- d) Need and Importance of Group Activities for healthy social life

Unit 3 : Physical Education and Sports for rehabilitation

- a) Physical Education for all
- b) Remedial Exercise for disable persons
- c) Need & Importance of Exercises for Mental Health
- d) Need and Importance of Physical Education & Sports to develop social Health

Unit 4 : Modern technology in Sports and Physical Education

- a) New apparatus and equipments in Sports and games
- b) New techniques of testing physical ability, motor ability and anthropometry
- c) Types of sports **arean** surfaces

- d) Technology used in officiating and statistical information in physical education and sports sciences.

Unit 5 : Physical science in Sports and games

- a) Applications of Biomechanics in Sports and games
- b) Mechanical principles involved in sports
- c) Biomechanics for better efficiency
- d) Nutritional science for better health

References:

1. Bucher: Foundation and Physical Education
2. Sunder Rajan: Bio-mechanics of Sports and games
3. Bucher: Bio-mechanics of Sports techniques
4. Hay James R.J. Gaish: The anatomical and mechanical basis of human motin
5. Dr.Deshmukh, P.N.: Modern Trends in Physical Education Krishakant Distribution, Latur
6. Alok Ghosh: Hand book of Sports medicine and Physical fitness
7. Parle J.E.L Preventive and Social Medicine
8. Clarke D.H.L Exercise Physiology

Paper-IIIrd

DEVELOPMENT IN PHYSICAL EDUCATION AND SPORTS SCIENCES

Unit 1 : ANATOMY AND Kinesiology in Sports and Game

- a) Area and scope of anatomy and kinesiology in physical education and sports
- b) Application of kinesiology for better performance in sports
- c) Application of Anatomy and kinesiology
- d) Scope & area of anatomy, Kinesiology for development of Sports Training Method research in physical education sports sciences

Unit 2 : Sports Psychology

- a) Tests to evaluate personality characteristics
- b) Stress Management and measurement of stress
- c) Application of psychological theories in sports and games
- d) Types of psychological test and construction and standardization of psychological test in physical education and sports

Unit 3 : Physiology of Exercises

- a) Neuro muscular of physiology
- b) Physiology of Bio energetic
- c) Impact of exercise and training on human physiology
- d) Scope of physiology in the field of physical education and sports sciences research

Unit 4 : Environment and Health

- a) Effect of Environment on health variables and welfare variables
- b) Effect of environment on coaching and training
- c) Effect of exercise and Environment on ageing
- d) Effect of attitude as exercise performance

Unit 5 : Test, Measurement and Evaluation

- a) Application of Test, Measurement and Evaluation in Sports

Sciences Research

- b) Construction of Motor fitness test, Physical fitness test, anthropometric and skill test and their application in sports sciences research
- c) Standardization of motor fitness test, physical fitness test, anthropometric and skill test & their application in sports sciences research
- d) Types of software and their importance in evaluation in sports science research

References:

1. Guyton A.C. Text Book of Medical Physiology W.B. Saunder Company, Philadelphia, 1976
2. De.Veries H.A.: Physiology of exercise for physical Education and Athletics, Staples, Press London
3. Dourne G.M. The structure and function of muscle Academic of press London 1972
4. Katch: Exercise Physiology, Energy, Nutrition and human performance-Henery Kimpson U.K. 1984
5. Shaver L.G. Essentials f exercise physiology Sajreent Publication, New Delhi 1982
6. Kane J.Ed. Psychological Aspects of Physical Education and Sports, London routedge and keger Paul 1972
7. Singer, Rober N.Motor Learning and Human Performance, New York: Mc-Millan Pulishing Co-Inc.1975
8. Stress Management Through Youga and Meditation by-Panditnath, Published by sterling publisher private limited 10 green part extn. New Delhi
9. Psychology of coaching theory and application Jack. H. Liewllyn and Judy Blacker.
10. Psychology of Coaching-Luther.