

# **Savitribai Phule Pune University**

(Formerly University of Pune)

M.A. (Master of Arts) Post Graduate Degree Program in Psychology (Faculty of Humanities)

M.A. PSYCHOLOGY

**Choice Based Credit System (Semester Pattern)** 

**Syllabus** 

To be implemented from Academic Year 2019-2020

# M.A. – I: PSYCHOLOGY

- 1: This is 64 credit PG degree course.
- 2: Each semester shall have 16 credits.
- 3: Internal and external examination pattern would be based on BOE structure.
- 4: Changes as per the university guidelines shall be communicated from time to time.

	Semester	Paper No.	Title of the Paper	Lectures per week	Credit for semester
First Year	1	EP-101	Cognitive Psychology: Understanding	04	04
		EP-102	Psychometrics: The Science Of Psychological Assessment	04	04
		EP-103	Research Methodology-I	04	04
			(Issues And Essential Techniques In Statistics And Experimental Design)		
		EP-104	Psychology Practical: Testing	08	04
	2	EP-201	Cognitive Psychology: Advances And Application	04	04
		EP-202	Psychometrics: Applications	04	04
		EP-203	Research Methodology-II (Qualitative methods and contemplative practices)	04	04
		EP-204	Psychology Practical: Experiments	08	04

#### **EP-101: COGNITIVE PSYCHOLOGY: UNDERSTANDING**

## **Objectives and learning outcomes:**

To understand the origin of cognitive psychology

To explore the knowledge of cognitive psychology

To make students aware with the recent trends in cognitive psychology

To help students in relating subject matter of cognitive psychology to daily life

# **Unit-1: Introduction to Cognitive Psychology**

- 1.1. Definition, Nature and Scope of Cognitive Psychology
- 1.2. History of Cognitive Psychology
- 1.3. Methods to study cognitive Psychology-I

Observation

Introspection

Experimental

# 1.4. Methods to study cognitive Psychology-II

Quasi-Experimental

Neuropsychological

## 1.5. Application:

**Understanding Cognitive Map** 

## **Unit-2: Exploring Cognitive Psychology**

## 2.1. Definition, Nature and Theories:

- (i) Sensation: Empiricism, Natural Science, Structuralism, Gestalt, Psychophysical approach, Theories of Color Vision, Theories of Pitch
- (ii) Perception: Bottom Up theories of Perception , Top down perception theories, Computational theories

## 2.2. Definition, Nature and Theories:

- (i) Attention: Bottleneck theory, Automatic versus controlled processing, Feature integration theory, Stroop Effect, Signal Detection, Vigilance
- (ii) Pattern Recognition: Template matching theory, Prototype models,
  Distinctive-features models and Computational approach

# 2.3. Definition, Nature and Theories:

- (i)Thinking: Associationism, Gestalt, Information Processing
- (ii) **Problem Solving:** Problem Space theory, Means-End Hypothesis, Analogy Approach

# 2.4. Application:

- (i) Activities on Cognitive Map,
- (ii) Extra Sensory Perception

# **Unit-3: Exploring Cognitive Psychology**

# 3.1. Definition, Nature and Theories:

- (i) Learning: Hull's Systematic Behaviour Theory, Lewin's Field Theory of Learning, Tolman's Sign Learning, Gagne's Theory of Learning, Bandura's Social Learning Theory,
- (ii) Memory Model: Unitary, Dual, Multimodal
- 3.2. Definition, Nature and Theories: (i) Artificial Intelligence, (ii) Language
- **3.3. Definition, Nature and Theories**: (i) Decision Making, (ii) Creativity
- **3.4.** Application : memory Improvement Techniques

# **Unit-4: Recent Trends in cognitive Psychology**

- 4.1. **Recent Trends in :** (i) Sensation, (ii) Perception, (iii) Attention-: Biological Bases of Attention,
- 4.2. **Recent Trends in:** (iv) Creativity, (v) Thinking, (vi) Problem Solving (समस्या सोडविणे)
- 4.3. **Recent Trends in:** (i) Learning, (ii) Memory, (iii) Pattern Recognition (संघात प्रत्याभिज्ञान)
- 4.4. Recent Trends in: (i) Language, (ii) Artificial Intelligence, (iii) Decision Making
- 4.5. **Application:** Develop creative thinking, decision making skills

- 1. Anderson, J. R. (2015). Cognitive psychology and its implications. New York: Worth Publishers
- 2. Best, J. B. (1999). Cognitive Psychology. USA: Wadsworth Publishing Co.
- 3. Borude, R.R. Bodhanikmanasashastra. ChhayaPrakashan.
- 4. Galloti, K. M. (2004). *Cognitive psychology in and out of the laboratory*. USA: Thomson Wadsworth.
- 5. Horton, D. L. and Turnage, T. W. (1976). Human learning. ND: Prentice-Hall
- 6. Kellogg, R. T. (2007). Fundamentals of Cognitive Psychology. N.D. Sage Publications
- 7. Matlin, M. (1994). Cognition. Bangalore: Harcourt Brace Pub.
- 8. Singh, Shyam & Singh (2008) Psychoneuroimmunology, Global Vision, New Delhi
- 9. Sternberg, R. J. (2007). Cognitive Psychology. Australia: Thomson Wadsworth.
- 10. Solso, R. L. (2004). Cognitive Psychology (6th ed.). Delhi: Pearson Education.
- 11 बोरुडे आर.आर) .२००५ (बोधनिक मानसशास्त्र ,छाया प्रकाशन
- 12. भरत देसाई आणि शोभना अभ्यंकर) २००७ (प्रायोगिक मानसशास्त्र आणि संशोधन पद्धती ,नरेंद्र प्रकाशन ,पुणे

Note: Relevant and recent research articles will be referred in text preparation.

#### **EP-102: PSYCHOMETRICS: THE SCIENCE OF PSYCHOLOGICAL ASSESSMENT**

## Objectives and learning outcomes:

To create critical understanding of measurement issues and techniques in psychological inquiry.

To enable students to develop skills and competencies in test construction and standardization.

To understand the various biases in psychological testing and assessment.

# **Unit-1. Perspectives on psychometrics**

- 1.1. Scientific method, realism, truth and psychology
- 1.2. Scientific measurement in psychometrics and measurement in the natural sciences
- 1.3. Measurement models: Classical test theory, Latent variable model, Representational measurement model
- 1.4. The theory of true scores, the statistical true score, the platonic true score, Psychological vs. Physical true score, the true psychometric: trait or function
- 1.5. Ethical issues in psychological testing

#### Unit-2. Process of test construction:

- 2.1. Knowledge-based and person-based questionnaire
  - 2.1.1. Objective and open-ended tests
  - 2.1.2. Norm-referenced and criterion-referenced testing
  - 2.1.3. The correction for guessing in objective knowledge based test
- 2.2. Item analysis
  - 2.2.1. Classical item analysis statistics for knowledge-based tests
  - 2.2.2. Classical item analysis for person-based tests
  - 2.2.3. Item analysis in criterion-referenced testing
- 2.3. Item response theory (IRT)
- 2.4. Relation of IRT and Classical test theory
- 2.5. Item characteristic curve

#### **Unit-3. Standardization of tests**

- 3.1. Reliability: Concept and types of reliability, forms of error; Spearman-Brown correction, cautions in the use of reliability coefficient
- 3.2. Validity: Concepts and types of validity; Political validity; Confusion between validation and validity.
- 3.3. Normalisation: Algebraic normalisation, graphical normalisation
- 3.4. Types of norms
- 3.5. The use of Factor Analysis in test construction

## Unit- 4. Bias in testing and computer applications

- 4.1. Forms of bias
  - 4.1.1. Item bias: Identifying item bias
  - 4.1.2. Differential item functioning, item offensiveness
- 4.2. Intrinsic test bias: Statistical models of intrinsic test bias
- 4.3. Extrinsic test bias: Extrinsic test bias and ideology; legal aspects of extrinsic test bias; guidelines in case of test bias
- 4.4. Computerization in psychological Testing
- 4.5. Artificial intelligence and psychological testing

- Borsboom, D. (2005). *Measuring the mind: Conceptual issues in contemporary psychometrics*. UK: Cambridge University Press.
- Chadha, N. K. (2009). Applied psychometry. New Delhi, India: Sage.
- Kline, P. (1998). *The new psychometrics: Sciences, psychology and measurement*. London & New York: Routledge.
- Michell, J. (1990). *An Introduction to the logic of psychological measurement*. Hillsdale, MI: Erlbaum.
- Rust, J., & Golombok, S. (2009). *Modern psychometrics: The science of psychological assessment*. London and New York: Routledge.

# **EP-103: RESEARCH METHODOLOGY-I** (ISSUES AND ESSENTIAL TECHNIQUES IN STATISTICS AND EXPERIMENTAL DESIGN)

## **Objectives:**

To inform students about the basics of scientific research in applied psychology.

To make them learn the statistical rigours in designing research and processing data.

## 1. Introduction to research

- 1.1. Meaning, purpose and dimensions of research.
- 1.2. Paradigms of research
  - 1.2.1. Qualitative
  - 1.2.2. Quantitative
- 1.3. Types of research
- 1.4. The research Process
- 1.5. Ethical problems and principles.

## 2. Introduction to statistics

- 2.1. Nature of data
- 2.2. Measures of central tendency and variability
- 2.3. Testing the normality
- 2.4. Parametric and Non Parametric Statistics
- 2.5. Correlation and Regression

# 3. Research Problem, Sampling and hypothesis testing

- 3.1. Research problem, definition and selection
- 3.2. Sampling procedures of hypothesis testing
- 3.3. Sampling design: definition and characteristics
- 3.4. Types of sample designs
- 3.5. Appropriate selection of Statistical techniques

## 4. Experimental Design and Analysis of Variance

- 4.1. Definition of experimental design
- 4.2. Types of experimental design
- 4.3. Selection of statistical methods
  - 3.2.1. Randomized experimental and quasi-experimental approaches
  - 3.2.2. Group vs. single-subject designs
- 4.4. t test
- 4.5. ANOVA

**Quantitative analysis for examination purpose**: NPC, Correlation, regression, Students t- test and one way ANOVA, Sample selection.

- Aron, Arthur; Aron, Elaine N.; Coups, Elliot J. (2006). *Statistics for Psychology* (4<sup>th</sup>Edn.). Dorling Kindersley (India) Pvt. Ltd. With Pearson Education Limited.
- Bridget, S., & Cathy, L. (Eds.) (2008). Research methods in the social sciences. New Delhi, India: Vistaar Publication.
- Broota, K. D. (1989, reprint 2014). *Experimental design in Behavioural Research*. New Age International Pvt. Ltd., New Delhi.
- Chadha, N. K. (2009). Applied psychometry. New Delhi, India: Sage.
- Garrett, Henry E. (2006). *Statistics in Psychology and Education*(1<sup>st</sup> Indian reprint). Surject Publications, Delhi-7.
- Gliner, J. A., & Morgan, G. A. (2000). Research methods in applied settings: An integrated approach to design and analysis. Mahwah, NJ: Lawrence Erlbaum.
- Howell, D. C. (2002). Statistical methods for psychology (5th ed.). Duxbury, California: Thomson Learning.
- Kerlinger, Fred N. (2009). *Foundation of behavioral research* (9<sup>th</sup> reprint).Holt, Rinehart and Winston, Inc. USA. (Surject Publications, New Delhi).

- Kothari, C. R. (2011). *Research Methodology: Methods and Techniques* (2<sup>nd</sup> revised edition). New Age International Publishers, New Delhi
- Mangal, S. K. (2009). *Statistics in Psychology and Education* (2<sup>nd</sup> Edition- 10<sup>th</sup> printing). PHI learning Pvt. Ltd., New Delhi.
- McBurney, Donald H.; White, Theresa L. (2007). Research Methods (7<sup>th</sup> Edition). Thomson.
- Pallant Julie (2010). SPSS Survival Manual: A step by step guide to data analysis using SPSS (4<sup>th</sup> Ed.). McGraw-Hill.
- Ranjit Kumar (2015). Research Methodology: A Step by step guide for beginners. Pearson.
- Singh, A. K. (2006). *Tests, Measurements and Research Methods in Behavioural Sciences* (5<sup>th</sup> Edition).BharatiBhawan: Publishers and Distributors.
- Tabachnick, Barbara G.; Fidell, Linda S. (2007). *Using Multivariate Statistics* (5<sup>th</sup>Edn.).

  Pearson.
- Tredoux Colin and Durrheim Kevin (2002). *Numbers, Hypotheses & Conclusions: A Course in Statistics for the Social Sciences*. UCT Press, Lansdowne. SA.
- Zechmeister, Jeanne S.; Zechmeister, Eugene B.; Shaughnessy, John J. (2009). *Essentials of Research Methods in Psychology*. Tata McGraw-Hill.

# **EP-104: PSYCHOLOGY PRACTICAL: TESTING**

# **Objectives**: To acquaint the students with:

- 1. The administration of the standardized psychological tests, rapport establishment, interpretation of scores and report writing.
- 2. The criteria's of evaluating psychological tests
- 3. Certain counseling skills on the basis of psychological results

# **UNIT-1: GENERAL AND SPECIAL ABILITY TESTS (any three)**

- 1. Standard Progressive Matrices, Cattell's Culture Fair Test of Intelligence
- 2. WAIS-IV (India), GATB, GMAT
- 3. DAT, DBDA, EATB
- 4. Torrence test of Creativity / Salahkar Creativity Test / Passi Creativity test
- 5. Reasoning Ability Test, Cognitive Ability Test

# **UNIT-2: PERSONALITY TESTS (any three)**

- 1. NEO-PI-R, 16 PF, MBTI (Form F)
- 2. Vocational Preference Inventory by J. I Holland
- 3. Bell's Adjustment Inventory
- 4. Thematic Apperception Test (TAT)
- 5. Attitude and Value Scale

# **UNIT-III: CLINICAL TESTS (Any two)**

- 1. MMPI /
- 2. Neuropsychological Assessment Battery (NAB)
- 3. Adult Neuropsychological Questionnaire
- 4. State-Trait Anger Expression Inventory-2 (STAXI-2)
- 5. Depression Scale

# **UNIT-IV: OTHER TESTS (ANY TWO)**

- 1. FIRO-B/BIRO-P
- 2. Assessment of Subjective Wellbeing
- 3. Career and Family Value Scale
- 4. Family Environment Scale
- **5.** Self-Concept

- 1. Anastasi, A. & Urbina, S. (1997). Psychological testing. N.D.: Pearson Education.
- 2. Kaplan, R.M. & Saccuzzo, D.P. (2007). Psychological Testing: Principles, Applications, and Issues. Australia: Thomson Wadsworth.
- 3. Gregory, R.J. (2005). Psychological testing: History, principles and applications. New Delhi: Pearson Education.
- 4. Singh, A.K. (2006). Tests, Measurements and Research Methods in Behavioural Sciences. Patna: Bharati Bhavan.
- 5. Freeman, F.S. 3rd ed. (1965). Psychological testing. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
- 6. Cronbach L. J. (1984). Essentials of Psychological Testing (4th Ed)
- 7. Anastasi A. (1988). Psychological Testing. New York: McMillan
- 8. Murphy, K. R., Davidshofer, R. K. (1988): Psychological testing: Principles and applications. New Jersey: Prentice Hall Inc.
- 9. Nunnally, J.C. and Bernstein, I.H. (1994). Psychometric theory (3rd ed). NY: McGraw-Hill.
- 10. Aiken L.R. (1996) Rating Scales and Checklists: Evaluating Behavior, Personality and Attitudes.
- 11. Buros, O. (ed). (1965, 1972). The mental measurement. Year Book, NJ: Gryphon Press.
- 12. Ghiselli, E. E., Campbell, J. P. & Zedek, S. (1981). Measurement theory for the behavioural sciences. W.H. Freeman.
- 13. Chadha, N. K. (1996). Theory and practice of psychometry. N. D.: New Age International Ltd.
- 14. Stanley, J.C. and Hopkins, K.D. (1978). Educational and psychological measurement and evaluation. ND: Prentice-Hall of India.
- 15. Guilford, J.P. (1975). Psychometric methods. ND: Tata McGraw-Hill. 16. Test manuals of respective tests.

#### **EP-201: COGNITIVE PSYCHOLOGY: ADVANCES AND APPLICATION**

# Objectives and learning outcomes:

- 1. To understand the advances in cognitive psychology
- 2. To study the application of cognitive psychologyin different fields

# Unit-1: Advance in Cognitive Psychology- I

- 1.1. Definition and Nature: Consciousness
- 1.2. Definition and Nature: Critical Thinking
- 1.3. **Definition and Nature:** Neuropsychology
- 1.4. Conceptual Understanding: Metacognition
- 1.5. Application: Brain Assessment Tools: CT Scan, MRI, fMRI, PET Scan

## Unit-2: Advances in Cognitive Psychology-II

- 2.1. Thought and Language
- 2.2. Sex Differences and Cognitive Abilities
- 2.3. IQ, EQ and Creative Thinking
- 2.4. Reading, Writing, Speaking and Cognitive Phenomenon
- 2.5. Application: Develop Critical Thinking

# Unit-3: Applications of Cognitive Psychology- I

- **3.1. Application in Clinical Psychology:** Brain and Behaviour Problems
- 3.2. Application in Clinical Psychology: Psychotherapies
- 3.3. Application in Education Psychology: (i) Child development (ii) Learning styles
- 3.4. Application in Education Psychology: (i) Forgetting (ii) Moral development
- **3.5. Application:** Cognitive Stages of Development and Teaching methods/techniques

# **Unit-4: Applications of Cognitive Psychology-II**

- 4.1. Application in Forensic Psychology: (i) Cognitive interview (ii) Lie Detector
- **4.2. Application in Forensic Psychology:** (iii) Eyewitness testimony (iv) Face Recognition
- **4.3. Application in Computer Science:** Memory Models and Computer Science
- **4.4. Application in Computer Science :** Information processing, SDT
- 4.5. Application: Identity Kit

#### **READINGS:**

- 1. Anderson, J. R. (2015). Cognitive psychology and its implications. New York: Worth Publishers
- 2. Best, J. B. (1999). Cognitive Psychology. USA: Wadsworth Publishing Co.
- 3. Borude, R.R. Bodhanikmanasashastra. ChhayaPrakashan.
- 4. Galloti, K. M. (2004). *Cognitive psychology in and out of the laboratory*. USA: Thomson Wadsworth.
- 5. Horton, D. L. and Turnage, T. W. (1976). Human learning. ND: Prentice-Hall
- 6. Kellogg, R. T. (2007). Fundamentals of Cognitive Psychology. N.D. Sage Publications
- 7. Matlin, M. (1994). Cognition. Bangalore: Harcourt Brace Pub.
- 8. Singh, Shyam & Singh (2008) Psychoneuroimmunology, Global Vision, New Delhi
- 9. Sternberg, R. J. (2007). Cognitive Psychology. Australia: Thomson Wadsworth.
- 10. Solso, R. L. (2004). Cognitive Psychology (6th ed.). Delhi: Pearson Education.
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- 12. भरत देसाई आणि शोभना अभ्यंकर) २००७ (प्रायोगिक मानसशास्त्र आणि संशोधन पद्धती ,नरेंद्र प्रकाशन ,पुणे

Note: Relevant and recent research articles will be referred in text preparation.

#### **EP-202: PSYCHOMETRICS: APPLICATIONS**

## **Objectives:**

- To understand how psychological tests are used for the purpose of assessment, guidance and enhancing the effectiveness of teaching-learning process.
- To understand the use and interpretation of various psychological tests used in educational field.
- To understand the use of psychological tests are used for better health, adjustment and related counselling.

To understand the use of psychological tests in clinical and organizational settings

## Unit-1: Applications of Psychological Testing in Educational Setting

- 1.1. Tests of ability: General Aptitude Test Battery (GATB), Fairview Social Skills Scale (FSSS), Torrance test of creative thinking (TTCT), Differential Ability Test (DAT)
- 1.2. Tests of Intelligence: Standard Progressive Matrices (SPM), Wechsler Intelligence Scale for Children (WISC), Social Intelligence Scale (SIS)
- 1.3 Interest Inventory: Strong-Campbell Interest Inventory (SCII),
- 1.4. Creativity Tests: Passi Test of Creativity, Verbal Test of Scientific Creativity
- 1.5. Application- Career Interest Inventory

# Unit-2: Applications of Psychological Testing in Counselling and Guidance

- 2.1. Child-Rearing Practices: Child-rearing Practices Questionnaire,
- 2.2. Self-concept Scales: Tennessee Self-Concept Scale, Self-Concept Inventory
- 2.3. Adjustment Tests: College adjustment and study skills inventory,
- 2.4. Attitude Tests: Brief Criminal Attitude Scale (BCATS), Tobacco Use Questionnaire
- 2.5. Application- Family Environment Scale (FES)

# **Unit-3: Applications of Psychological Testing in Clinical Setting**

- 3.1. Tests of Personality-I: Sixteen Personality Factor (16 PF) Questionnaire, Thorndike Dimensions of Temperament, Myers-Briggs Type Indicator (MBTI)
- 3.2. Tests of Personality-II: Structural Clinical Interview, Choice Dilemmas Questionnaire (CDQ), Kundu's Neurotic Personality Inventory (KNPI)
- 3.3. Rosenzweig Picture-Frustration study for children, State-Trait Anger Test, Anxiety Scale
- 3.4. Minnesota Multiphasic Personality Inventory (MMPI), Rorschach and Rotter Incomplete Sentence Test,
- 3.5. Application- TAT

## Unit-4: Applications of Psychological Testing in Organisational Setting

- 4.1. On the Job: Minnesota Satisfaction Questionnaire, Overall Job Satisfaction Scale, Organizational Commitment Scale, Organizational Effectiveness Scale
- 4.2. Motivation: Intrinsic Job Motivation Scale, Motivation Scale
- 4.3. Leadership Opinion Questionnaire, Workers Attitude Scale, BIRO-P / FIRO-B
- 4.4. Occupational Stress Index, Interpersonal Trust Scale
- 4.5. HRD Function Questionnaire/ EQ Test

- Aiken L.R. (1996) Rating Scales and Checklists: Evaluating Behavior, Personality and Attitudes
- Anastasi, A. & Urbina, S. (1997). Psychological testing. N.D.: Pearson Education.
- Chadha, N. K. (1996). Theory and practice of psychometry. N. D.: New Age International Ltd.
- Cronbach, L. J. 5th ed. (1990). Essentials of psychological testing. New York: Harper Collins Publishers
- Freeman, F.S. 3rd ed. (1965). Psychological testing. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
- Ghiselli, E. E., Campbell, J. P. & Zedek, S. (1981). Measurement theory for the behavioural sciences. W.H. Freeman.
- Gregory, R.J. (2005). Psychological testing: History, principles and applications. New Delhi: Pearson Education.
- Kaplan, R.M. & Saccuzzo, D.P. (2007). Psychological Testing: Principles, Applications, and Issues. Australia: Thomson Wadsworth.
- Kline, P. (1983). Personality measurement and theory. Hutchinson.
- Murphy, K. R., Davidshofer, R. K. (1988): Psychological testing: Principles and applications. New Jersey: Prentice Hall Inc.
- Nunnally, J.C. (1981). Psychometric theory. ND: Tata McGraw-Hill.

## EP-203: RESEARCH METHODOLOGY - II (QUALITATIVE METHODS AND MULTIVARIATE ANALYSIS)

## **Objectives:**

To learn about the philosophical foundations, goals and scope of qualitative methodology.

To develop an understanding about the relationship between paradigms of science and methods of qualitative inquiry.

To understand basic procedures of using qualitative methodology.

To learn about scientific rigour in the use of qualitative methodology.

To make them learn the statistical rigours in multivariate analysis.

### **Course Contents:**

# 1. Introduction to qualitative research tradition and its scope

- 1.1. What research problems in psychology require qualitative inquiry?
- 1.2. Basic assumptions, principles and promises of qualitative research.
- 1.3. The critical understanding of experience within socio-historical context.
- 1.4. Brief history of qualitative research.
- 1.5. Introduction to some important methods: Ethnography, grounded theory, narrative inquiry, and phenomenological inquiry.

# 2. Basic procedures in qualitative inquiry

- 2.1. Formulating research questions.
- 2.2. Developing semi-structured interview schedule.
- 2.3. Building research relationship.
- 2.4. Generating qualitative data: The role of researcher's reflexivity.
- 2.5. Quality and rigour in qualitative research.

## 3. Analyzing qualitative data: A reflexive exercise

- 3.1. Researcher's reflexivity about his/her experiential and theoretical standpoint.
- 3.2. Empathy and reflexivity in qualitative data analysis.
- 3.3. Coding and memo writing.
- 3.4. Identifying and developing narrative structure.
- 3.5. Theoretical saturation and theoretical sampling.

## 4. Multivariate Statistical Analysis

- 4.1. Multivariate analysis- Introduction.
- 4.2. MANOVA, ANCOVA
- 4.3. Multiple Regression, Factor Analysis
- 4.4. Causal modelling, SEM
- 4.5. Using computer programs for statistical analysis

- Charmaz, K. (2004). Premises, principles, and practices in qualitative research: Revisiting the foundations. Qualitative Health Research, 14, 976-993.
- Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative analysis.

  Thousand Oaks, CA: Sage.
- Creswell, J. W., Hanson, W. E., Plano, V. L. C., & Morales, A. (2007). Qualitative research design: Selection and implementation. The Counseling Psychologist, 35, 236-264.
- Denzin, N. K., & Lincoln, Y. (2005). Handbook of qualitative research (3rd ed.). Thousand Oaks, CA: Sage.
- Ellingson, L. L. (1998). —Then you know how I feel||: Empathy, identification, and reflexivity in fieldwork. Qualitative Inquiry, 4, 492-514.
- Howell, D. C. (2002). Statistical methods for psychology (5th ed.). Duxbury, California: Thomson Learning.
- Frank, A. W. (2000). The standpoint of storyteller. Qualitative Health Research, 10, 354-365.
- Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. Journal of Counseling Psychology, 52, 126-136.
- Sampson, E. E. (1993). Identity politics: Challenges to psychology's understanding. American Psychologist, 48, 1219-1230.
- Smith, J. A., Harre, R., & Langenhove, L. V. (Eds.) (1995). Rethinking methods in psychology. London: Sage.
- Willig, C., & Stainton-Rogers, W. (Eds.) (2008). Handbook of qualitative research in psychology. London: Sage.

#### **EP-204: PSYCHOLOGY PRACTICAL: EXPERIMENTS**

## **Objectives:**

To acquaint the students with:

- 1. The various areas of experimentation in psychology
- 2. Skills required in conducting experiments in psychology
- 3. Applications of experimental design and report writing style

# **UNIT:1 EXPERIMENTS ON LEARNING (ANY THREE)**

- 1. Problem solving (Hanoi's Tower, Heart & Bow Puzzle, Wiggly Blocks)
- 2. Method of serial anticipation
- 3. Conditioning: Verbal or hand withdrawal
- 4. Retroactive or proactive interference
- 5. Paired Associate learning
- 6. Bilateral transfer in Mirror Tracing/maze learning

# **UNIT-2: EXPERIEMENTS ON MEMORY (ANY TWO)**

- 1. Forgetting
- 2. Short term Memory
- 3. Effect of Mnemonic strategy on memory
- 4. The effect of coding on memory
- 5. Immediate memory
- 6. Memory for Associated and Un-associated pairs of words
- 7. Recall and Recognition

# **UNIT-3: EXPERIMENTS ON MOTIVATION AND EMOTION (ANY THREE)**

- 1. Determining aspiration level
- 2. Knowledge of Result (KoR)
- 3. Zeigarnik Effect
- 4. Goal Setting
- 5. Effect of anxiety on performance

# **UNIT-5:EXPERIMENTS ON COGNITIVE PROCESS (ANY TWO)**

- 1. Perceptual Defense
- 2. Concept formation
- 3. Mental imagery
- 4. Rational Learning
- 5. Stroop effect in serial learning
- 6. Time perception
- 7. Phi-Phenomenon
- 8. Measurement of illusion

- 1. Rajamanickam, M. (2005). Experimental Psychology: with Advanced Experiments, Volume 1 & 2. New Delhi: Concept Publishing Company.
- 2. Mohsin, S. M. (1975). Experiments in psychology. Orient Longman.
- 3. Mohanthy. Experiments in psychology.
- 4. Parameshwaran, E. G. & Rao, B. T. (1968). Manual of experimental psychology. Bombay: Lalvani Publishing House.
- 5. Tinker, M.A. & Russell, W.A. Introduction to methods in experimental psychology. Appleton Century Crofts.
- 6. Jalota, S. (1962). Experiments in psychology. Asia Publishing House.
- 7. Galloti, K. M. (2004). Cognitive psychology in and out of the laboratory. USA: Thomson Wadsworth.
- 8. Sternberg, R.J. (1996). Cognitive psychology. NY: Harcourt Brace College Publishers.
- 9. Guenther, R.K.(1998). Human cognition. NJ: Prentice-Hall.
- 10. Baker, L.M., Weisiger, C. & Taylor, M.W. (1960). Laboratory experiments in general psychology. Oxford Univ. Press.
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