



Department of Education

University of Karachi

Bachelor of Education B.Ed. (Hons.) Secondary, 05 Semester Program

DTE-621

04

03

Research & Statistics in Education

Objectives

After the completion of this course, Student Teachers will be able to:

1. Define what research is and identify different types of research
2. Describe the importance of action research for improvement in classroom practices
3. Review literature for research purposes
4. Identify data collection tools
5. Explain data analysis procedures
6. Prepare a research proposal.

Course Outline

- 1.1 What is research?
- 1.2 The need and importance of research
- 1.3 Types of research

Unit 2: Types of reflective practices

- 2.1 Scientific Method
- 2.2 Critical thinking
- 2.3 Induction and deduction
- 2.4 Assumptions and revisiting ideas.

Unit 3: Literature review

- 3.1 Concept and meaning of literature review
- 3.2 Information sources
 - Primary sources
 - Secondary sources
- 3.3 Forms of literature review sources
 - Digital sources
 - Paper sources
 - Material sources

- 3.4 The importance of and need for literature reviews Clarity and focus
- 3.5 Broaden knowledge base of research

Unit 4: Research Methodology

- 4.1 Research design
- 4.2 Population and sampling
- 4.3 Data collection tools
- 4.4 Data collection procedure

Unit 5: Data analysis and interpretation

- 5.1 Qualitative Analysis
- 5.2 Coding
- 5.3 Arranging data according to themes and patterns
- 5.4 Quantitative analysis
- 5.5 Statistical tools

Unit 6: Findings, Summary, and Recommendations

- 6.1 Findings and drawing conclusions
- 6.2 Summary
- 6.3 Recommendations

Unit 7: Referencing and writing a research proposal

- 7.1 Research proposal
- 7.2 Contents of research proposal
- 7.3 Referencing
- 7.4 APA reference format with type of reference
- 7.5 Summing up and conclusion

Unit 8: Essentials of the Statics for Behavioral Sciences

- 8.1 Introduction to Descriptive Statistics
 - A. Frequency Distribution
 - B. Measures of Central Tendency
 - C. Measures of Variability
- 8.2 Foundations of Inferential Statistics
 - A. Z-Scores: Location of Scores & standardized distributions
 - B. Probability
 - C. Hypothesis testing
 - D. t-Statistics
 - E. Analysis of variance

8.3 Correlations and Non-Parametric Tests
A. Correlation & Regression
B. The Chi-square Statistics

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- Marshall, J. C. (2010). Classroom test construction. Boston: Addison-Wesley.
- McNiff, J., Lomax, P., & Whitehead, J. (1996). You and your action research project. New York: Routledge.
- Salkind, N. J. (2006). Exploring research. New Jersey: Pearson Prentice-Hall.
- Wiersma, W. (2000). Research methods in education. Boston: Allyn and Bacon.



Department of Education
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Bachelor of Education B.Ed. (Hons.) Secondary, 05 Semester Program

DTE-631

04

03

Secondary Education in Pakistan

Objectives

The course will enable the learners to:

1. Understand the concept of Secondary Education and its organizational structure
2. Comprehend the curriculum development and planning for secondary level
3. Evaluation secondary school curriculum critically
4. Analyze Secondary Education in comparative perspective
5. Evaluate Models of Secondary School Teacher Education
6. Analyze problems, issues and trends in Secondary Education