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CORE COURSE-I
M.ED. CC201: TREATMENT OF DATA & REPORT WRITING

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OBJECTIVES:

The Student:

1. Understands the place of research in education.
2. Gets acquainted with various resources of educational research.
3. Becomes familiar with various methods of research.
4. Achieves skill in writing and comprehending research reports.
5. Gets conversant with the problems of research design, tools of collecting data (and methods) and techniques of analysis.
6. Is initiated into research by undertaking a research problem of research and preparing a dissertation.

UNIT-I The Research Tools :

1.1 Questionnaire:
- Advantages and disadvantages of questionnaires
- Forms of questionnaires
- Types of items in questionnaires
- Basic guidelines for constructing items
- Questionnaire format
- Preliminary tryout
- Techniques for usable returns
- Reliability and validity of questionnaires

1.2 Interview :
- Advantages and disadvantages of interview
- Effects of interview on data collection
- Reliability, objectivity, and validity of interview
- Biasing factors in the interview
- Types of interview: individual and group, structured and unstructured
- Conduct of interview

1.3 Observation :
- Simple observation: controlled, participant and non-participant
- Aid in simple observation
- Systematic observation: Control over the observer and the subject.

1.4 Rating Scales :
- Numerical scales
- Graphic scales
- Descriptive graphic scales
- Rules for constructing scales

1.5 Standardized Tests :
- Characteristics of a good standardized test
- Factors to be considered in test selection
- Using tests in research
- Different types of standardized tests:
- Intelligence, aptitudes, achievement, diagnostic, measure of interest, personality, attitude scales

- Tests available in Gujarati version
- Mistakes often committed in selecting, administrating and using standardized tests

1.6   Other tools: Checklist, scorecard, Sociometry, Q-sort   technique, the semantic differential technique, content analysis

Unit-II Sampling Techniques:

2.1   Population and sample

2.2   Defining the population

2.3   Characteristics of a good sample

2.4   Importance of sampling

2.5   When should the sample be large?

2.6   Sampling techniques
   - Probability samples: simple random sampling, stratified random sampling, systematic sampling and cluster sampling
   - Judgment samples: Incidental sampling, purposive sampling, quota sampling
   - Other sampling techniques: Sampling by pairs, double sampling, sequential sampling
   - Mistakes often made in sampling
   - Sampling biases

UNIT-III Treatment of Data

3.1   Classification of data.

3.2   Quantification and description of data.

3.3   Data analysis, Classification and coding of data, Soft wares for data analysis (Excel)

3.4   Types of scores: Continuous scores, rank scores, dichotomies, categories

3.5   General descriptive statistics and statistical inferences.

3.6   Conclusions and generalizations.

UNIT-IV Writing Research Report

4.1   Format, style, typing, quotations, footnotes, bibliography, pagination, tables, figures, graph, chapterization (divisions of a report)

4.2   Introduction section

4.3   Review of literature section

4.4   Methods section

4.5   Results section

4.6   Summary and discussion section

4.7   References

4.8   Abstract

4.9   Mistakes in preparing research reports

4.10   Use of Computer in writing research report - word