RESEARCH DESIGN

HC - 07.

UNIT - II

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MEANING

- Every research study constitutes a research design.
- A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. (Claire Selltiz)
- A research problem is addressed through a research design.
- A research design consists an outline as to what the researcher would do starting from writing an hypothesis to the final analysis of data.
- **Research design is made keeping in view the following few points -:** ***what is the study about?, why is the study being made?, where will the study be carried out?, what type of data is required?, what periods of time will the study include?,what will be the sample design?, what techniques of data collection will be used?' How will the data be analysed?, and in what style the report be prepared? Etc.***

COMPONENTS OF RESEARCH DESIGN

- One may split the research design into the following parts :-
- SAMPLING DESIGN — It is the method of selecting items to be observed for the given study.
- Observational Design — It relates to the conditions under which observations are to be made.
- Statistical Design — It deals with how many items are to be observed and how the data collected would be analysed.
- Operational Design — It deals with the techniques by which the procedures specified in the sampling, statistical and observational designs can be carried out.

TYPES OF RESEARCH DESIGNS

Research Design	*Type of study*	
	Exploratory of Formulative	*Descriptive/Diagnostic*
Overall design	Flexible design (design must provide opportunity for considering different aspects of the problem)	Rigid design (design must make enough provision for protection against bias and must maximise reliability)
(i) Sampling design (ii) Statistical design (iii) Observational design (iv) Operational design	Non-probability sampling design (purposive or judgement sampling) No pre-planned design for analysis Unstructured instruments for collection of data No fixed decisions about the operational procedures	Probability sampling design (random sampling) Pre-planned design for analysis Structured or well thought out instruments for collection of data Advanced decisions about operational procedures.

PLANNING RESEARCH

- At first the research problem has to be identified and defined.
- Then the researcher must arrange his ideas in order and write them in the form of an experimental plan . This is described as the ***RESEARCH PLAN*****.**
- A research plan must contain the following items —:
- Research objective or what the researcher expects to do should be clearly stated.
- The problem to be studied must explicitly stated.
- The plan should contain the details of methods and techniques to be adopted. Procedure for quantifying data should spelled out in details.

CONTD.

- A clear mention of the population to be studied should be made. Identifying the sample should be such that generalisations from the sample to the original population is feasible.
- The plan must contain the methods to be used processing the data. Statistical and other methods to be used must be clearly indicated.
- Results of pilot study if any should be reported.
- Time and cost required for the research should be clearly stipulated in the plan.

REPORT WRITING

- The research task remains incomplete till the report has been presented or written.
- The purpose of research is not well served unless the findings are made known to others.

STEPS IN WRITING REPORT

A. Logical analysis of the subject matter :The subject matter has to be developed logically and chronologically.

B. Preparation of final outline : Outlines and frameworks created upon watch long written works are constructed, outlines aid the logical organisation of the material.

C. Preparing off the rough draft : The researcher now sits to write down what he has done in his research study. He writes down the procedure adopted in collecting material, limitations faced by him. Techniques of analysis used, findings, generalisations and suggestions.

D. Rewriting and polishing of rough draft : This step involves thorough checking and revision of the draft. Grammatical and spelling errors are taken into accounts.

E. Preparation of final bibliography : It contains all those works which the researcher has consulted.

LAYOUT OF THE RESEARCH REPORT

A. Preliminary pages : Report should carry a title and a date followed by acknowledgements, preface, table of contents, list of tables and illustrations.

B. Main text :-

- Introduction - The research project is introduced to the readers. The reader has to be made clear about why the problem was considered, the hypotheses of study, definitions of major concepts. The methodology regarding data collection and data analysis should be clearly explained.
- Statement of findings and recommendations
- Results - A detailed presentation of the findings of the study, with supporting data in the form of tables and charts together with a validation of results.
- Implications drawn from the results - Toward the end of the main text, the researcher should again put down the results of his research clearly and precisely which shall include the following :

- (a) A statement of the inferences drawn from the present study
- (b) The conditions of the present study which may limit the extent of legitimate generalisations
- (c) The relevant questions that still remain unanswered or new questions raised by the study along with suggestions for the kind of research that would provide answers for them.