Biostatistics

Survey Design

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Surveys

(A Thumbnail Introduction)

- A type of research to collect the data and facts bout some certain situation or issue from the target population existing in surroundings having relevance to the nature of study."
- "Survey research is the research strategy to study the relationships and characteristics."



"surveys are based on the desire to collect information (usually by questionnaire) about a well defined issue or situation (hypothesis) from the well defined population"

Surveys are method of data collection in which information is gathered through oral or written questioning"



- "Data collection through survey involves persuasion of respondents and then on some level social interaction between the respondents and the research interviewer"
- A team effort of many people having diverse skills.
- surveys are now used in all areas of life. For example business, politics, agriculture, industry, education, media etc.



Why surveys? (Purpose & Uses)

- To provide someone with information (to describe the situations).
- To explain the situations (analytical surveys).
- Problem identification & solving.
- To measure the change.
- To study attitudes, behavior and habits.



- To examine the cause-effect relationship.
- To study the characteristics.
- To formulate a hypothesis.
- To test a hypothesis.
- Decision making.



Types Of Surveys:

Descriptive Survey

"A descriptive survey attempts to picture or document current conditions or attitudes that is, to describe what exists at the moment"

Examples:

- Audience survey to determine the program taste.
- To study the changing values, life style by the effect of some special type of program.



Analytical Surveys

"An analytical survey attempts to describe and explain WHY certain situations exist. Here we examine two, or more variable to test our research hypothesis"

Examples:

- How life-style effects the t.v. viewing habits.
- Impact of war games on teenagers.



Some more types...

- 1- Factual surveys. (respondents act as reporters).
- 2- Opinion surveys. (respondents expresses his view point opinion).
- 3-Interpretative surveys.

(interpretation)

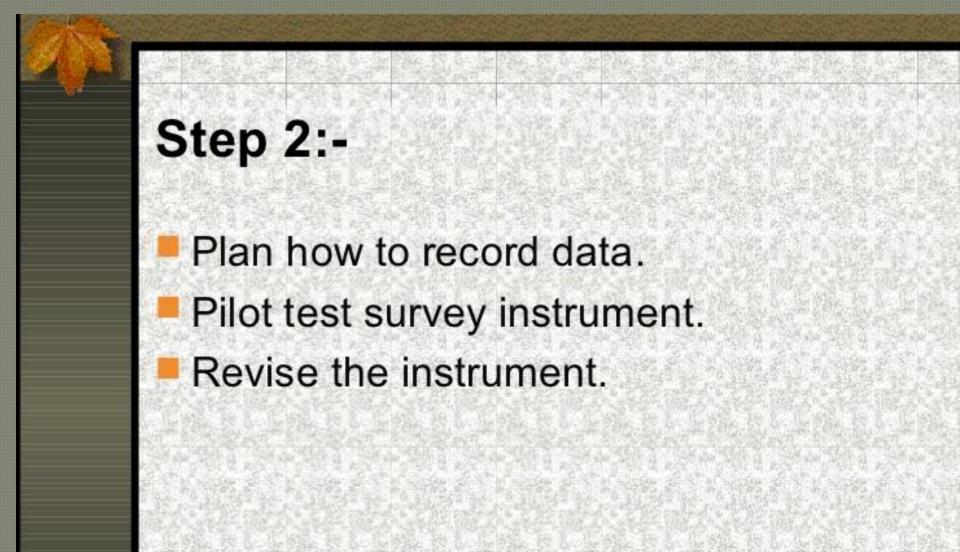
Example: Why do you read newspapers?



Steps in the Process of Survey Research

Step 1:-

- Develop Hypotheses.
- Decide on type of survey (mail, interview, telephone).
- Write survey questions.
- Decide on response categories.
- Design layout.





Step 3:-

- Decide on target population.
- Get sampling frame.
- Decide on sampling size.
- Select sample.



- Locate respondents.
- Conduct interviews.
- Carefully record data.



Step 5 :-

- Enter data into computers.
- Recheck all data.
- Perform statistical analysis on data.



Step 6:-

- Describe methods and findings in research report.
- Present findings to others for critique and evaluation.



Mailed questionnaire.

Personal interview.

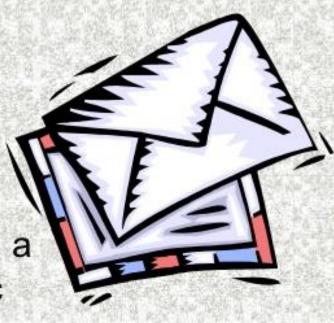
Telephone interview.



The Mailed Questionnaire

It is one of the most important data collection survey method.

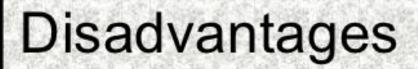
Mail survey involves sending a cover letter and a questionnaire to a specific person.





Advantages

- Low cost.
- Reduction in biasing errors.
- Greater anonymity.
- Accessibility.
- Less time & trained staff.



- Requires simple questions.
- No probing opportunity.
- No control over WHO fills?
- Low response rate.



Interviewing is a form of questioning characterized by the fact that it employs verbal questioning.

Together with the questionnaire, interviews make up the survey method, which is one of the most popular technique of data collection.





Advantages

- Flexibility in questioning.
- Control over the interview situation.
- High response rate.
- Collection of supplement data.



Disadvantages

- Higher cost.
- Interviewer bias.
- Respondent's hesitation on sensitive topics.
- Greater staff requirement.



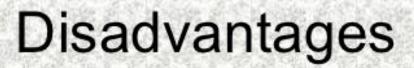
Telephone interview demonstrates the same structural characteristics as standard interviewing technique, except that it is conducted by telephone.





Advantages

- Moderate cost.
- Less time consumption.
- Higher response rate.
- Quality(Supervision, Recording)



- Hesitation to discuss sensitive topics.
- The "Broken-Off "interviews.
- No supplement information.



Mailed Questionnaire

Introduction

- Mail survey involves sending a cover letter and a questionnaire to a specific person.
- The cover letter states the purpose sponsor instructions and time of return.
- The questionnaire---- totally self explanatory, clear and simple.



Advantages of Questionnaire

- Less expensive (no need of interviewers).
- Quick results.
- Less opportunity for bias and errors.
- Wide coverage
- Respondents may use personal records.
- Collection of data about sensitive topics.
- Less time consumption.
- High response rate.



Disadvantages

- Many factors effect on response rate
- Low education.
- Disliking to write.
- Disliking to read.
- No interest in the topic.
- No further explanations
- Lack of understanding of respondents.
- We receive minimum amount of in formations against open ended questions.



Disadvantages

- No probing and clarification.
- No identity of the respondent.(some one else can also fill).
- No supervision-→ partial responses.