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Research Paper

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A DISCURSION ON THE ISSUES OF QUESTIONNAIRE DESIGN FOR SAMPLE SURVEY

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A B S T R A C T

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Questionnaires are used in a wide range of settings to gather information about the opinions and behavior of individuals. As with any other branch of science, the validity and reliability of the measurement tool, i.e. the questionnaire, needs to be rigorously tested to ensure that the data collected is meaningful. The design and method of administration of a questionnaire will also influence the response rate that is achieved and the quality of data that is collected. This paper discusses the issues that should be considered when designing and undertaking a questionnaire study.

Key words: Questionnaire, response rates, study design

Principles of questionnaire design
Step 1: Formulating clear objectives
Step 2: Establish a questionnaire design team
Step 3: Assessing constraints
Step 4: Drafting the questionnaire using a module approach Research Methods There are many ways to get information. The most common research methods are: literature searches, talking with people, focus groups, personal interviews, telephone surveys, mail surveys, email surveys, and internet surveys.The Order of the Questions Items on a questionnaire should be grouped into logically coherent sections. Grouping questions that are similar will make the questionnaire easier to complete, and the respondent will feel more comfortable. Questions that use the same response formats, or those that cover a specific topic, should Sampling Methods

Sampling is that part of statistical practice concerned with the selection of an unbiased or random subset of individual observations within a population of individuals intended to yield some knowledge about the population of concern, especially for the purposes of making predictions based on statistical inference. Sampling is an important aspect of data collection. Sampling methods are classified as either probability or no probability. In probability samples, each member of the population has a known non-zero probability of being selected. In no probability sampling, members are selected from the population in some nonrandom manner. There are various method of sampling like: 1. Random sampling: 2. Systematic sampling.3.Stratified sampling:4. Convenience sampling 5.Judgment sampling 6. Quota sampling 7.Snowball sampling. Questionnaire DesignGeneral **Considerations** Most problems with questionnaire analysis can be traced back to the design phase of the project. Well-defined goals are the best way to assure a good questionnaire design. When the goals of a study can be expressed in a few clear and concise sentences, the design of the questionnaire becomes considerably easier. The questionnaire is developed to directly address the goals of the study. Formulate a plan for doing the statistical analysis during the design stage of the project. Know how every question will be analyzed and be prepared to handle missing data. If you cannot specify how you intend to analyze a question or use the information, do not use it in the survey.

Survey A survey is a means of gathering information about a particular population by sampling some of its members; usually through a system of standardized questions The primary purpose of a survey is to elicit information which, after evaluation, results in a profile or statistical characterization of the population sampled. Preliminary Considerations

This work should provide the answers to the following

questions: 1. Have studies of this subject been done previously? 2. Is there literature enough on the subject to answer the question (i.e., books, periodicals, reports)? 3. Have other county organizations investigated this area, and do they have information available on the subject? 4. Can the desired information actually be collected by a survey or would another form of research be more appropriate? 5. Is there adequate time and resources available to conduct a survey without skipping steps in the process? Once the need for a survey is determined, a problem statement and objective must be developed for the survey.

Problem Statement— A clear, concise statement of the problem to be studied and/or the information desired should be put into writing. It is helpful to list possible causes of the problem, as well as possible solutions. This will help clarify the survey objectives.

Survey Objectives—Survey objectives will be concerned with the following issues: 1. What information is needed in order to understand the problem, its causes, and possible solutions? 2. How will the information be used and by whom? 3. What/ who is the population to be studied and can all members of the population be located? 4. Does the information collected need to be statistically valid and does it need to be generalized to a larger population? 5. What kinds of analyses would be useful for understanding the survey results? 6. Will the statistics resulting from the analysis of the survey data be appropriate for the sampling plan used as well as the questions to be answered?

Survey Budget— When conducting a survey, an adequate budget must be developed to cover all phases of work. .

Survey Mode— The survey mode is the type of survey that will be conducted. The most frequently used modes include face-to-face or personal interviews, telephone interviews, and written interviews which are usually conducted by mail or Internet.

A. Face-to-Face Interview Face-to-face interviews or personal interviews are surveys conducted in person by an interviewer who usually travels to the person being surveyed.

B. Telephone Interviews Telephone interviews are usually conducted from a central office that places telephone calls to selected households or businesses.

C. Mail Questionnaires Mail questionnaires are written surveys that are sent through the mail to selected members of the population to be surveyed.

D. Internet Questionnaire An Internet questionnaire is a form of a written survey. Respondents may be invited to participate in the survey through email or because they visit a particular web page.

Survey Questionnaire Design The survey questionnaire should be designed to include elements which make the survey pertinent and relevant to the population to be sampled, thereby maximizing response rates and minimizing error or bias.

A. Components The following sections normally comprise a questionnaire:

1. Request for Cooperation— 2. Instructions— 3. Actual Questions— 4. Classification Data— 5. Identification Data—

B. General Layout The layout of a written questionnaire can have as much to do with response and error rates as do the actual questions. Therefore, the following factors need to be carefully addressed:

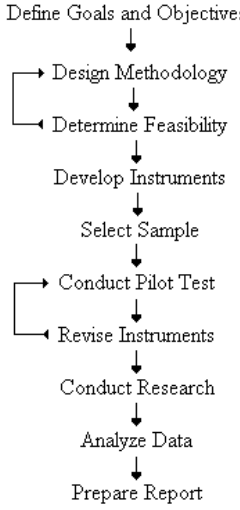
1. Length— 2. Appearance— 3. Instructions— 4.Flow— 5. Numbering Sequence— 6. Transition Statements—

Question Content The following factors must be considered when constructing the questions to be used in the survey instrument: 1. Will the question elicit the type of response desired? For example, "How long have you lived in your current home?" 2. Use words which are simple, familiar, and unambiguous to the target population. 3. Avoid double-barrel questions. The question "Do you support smoking policies in private industry, but not in governmental offices?" 4. Determine whether respondents will be able to answer accurately; are they likely to know, understand, and/or remember items relating to the desired information? 5. Avoid questions containing double negatives or phrases such as, "would you agree or disagree that…" These types of questions confuse respondents who may not correctly interpret the intended meaning. 7. Is the person answering the question the appropriate person? 8. Will the respondent be willing to answer certain types of questions truthfully? 9. Does the question bias the respondent's answer? 10. Questions which appear to be "off the wall" and unrelated to the subject matter being explored should be avoided. 11. The first question is important and should be short, simple, and relevant. 12. In multiple-choice or close-ended questions, make sure all possible response choices are included and are mutually exclusive.

Questionnaire Research Flow Chart Questionnaire research design proceeds in an orderly and specific

manner. Each item in the flow chart depends upon the successful completion of all the previous items. Therefore, it is important not to skip a single step. Notice that there are two feedback loops in the flow chart to allow revisions to the methodology and instruments.

Advantages of Written Questionnaires Questionnaires



are very cost effective when compared to face-to-face interviews. Questionnaires are easy to analyze. Questionnaires are familiar to most people. Questionnaires reduce bias. Questionnaires are less intrusive than telephone or face-to-face surveys.

Statistical Significance What does "statistical significance" really mean? Significance is a statistical term that tells how sure we are that a difference or relationship exists. To say that a significant difference or relationship exists only tells half the story. We might be very sure that a relationship exists, but is it a strong, moderate, or weak relationship? After finding a significant relationship, it is important to evaluate its strength. Significant relationships can be strong or weak. Significant differences can be large or small. It just depends on our sample size.

Conclusion In this paper we have described some of the important principles of undertaking a questionnaire survey. The steps needed for designing and testing a questionnaire have been discussed, together with issues surrounding the coding and analysis of the data. It should be clear to the reader by now that developing a questionnaire from scratch is a very time-consuming process.

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