

## UNSTRUCTURED INDIVIDUAL INTERVIEWING

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### Introduction

Sometimes a questionnaire designer is required to develop a questionnaire on a topic which he knows little about, and about which little information related to questionnaire design exists from previous surveys. In this situation, the development of a questionnaire can benefit from the use of "unstructured" interviews with members of the intended respondent universe. The term "unstructured interview" is used here to describe a discussion of the proposed survey topics between a member of the target survey population and the questionnaire designer, which is guided by a topic outline rather than a set of specific questions. When sufficient numbers of such interviews are conducted with a set of respondents who are fairly representative of the target population, the technique can provide ideas and insights about how best to structure the questionnaire before the first draft is written.

The following example provides an overview of the technique. In 1973 the Bureau of the Census (where the author was then employed) was asked to determine the incidence and characteristics of household fires in the United States. It was decided that a few "screener" questions should be added to the (monthly) Current Population Survey to determine if a fire had occurred in the household within the preceding few months. If a fire had occurred, a separate questionnaire would be administered to gather more detailed information, including extent of damage, death or injury to household members, and financial loss attributable to the fire.

The study directors and sponsors agreed to unstructured field interviews as a means of drafting a questionnaire, because they needed answers to several questions, including what definition of fire should be used, and whether or not people would call things like the following a fire: a grease fire while cooking, a smoldering mattress caused by a cigarette, a small fire ignited by a child, a fire in an automobile engine, and a chimney fire. They also wanted to know if it would be feasible to ask questions about injuries, loss of life, and whether or not the fire was caused by carelessness. Another area of uncertainty dealt with economic loss and who paid to restore the damage: did people know the dollar value of the losses due to fire and to what extent

were they covered by insurance, other family members, charity, etc.?

Since household fires are fairly rare events in the general population, some of the households selected for the unstructured interviews were chosen from fire department records, so that between one-third and one-half were known to have reported a fire within the preceding 6 to 9 months. The other households were selected from Census address lists; to reduce the amount of driving done by interviewers, addresses were chosen that were within 2 or 3 blocks of the households identified in the records of a fire department. Interviewers were not told which households had reported a fire to the fire department.

The team leader was a senior member of the survey methods research group; others on the interviewing team were junior professionals from the research and operations offices who would work on the final survey. The team of 5 worked singly and in pairs and, with permission of the respondents, tape recorded some interviews.

The team began with a list of topics to be covered and a thorough briefing on and discussion of the survey objectives. They met daily to share with each other what they had learned. Each interviewer conducted about 4 interviews per day for 5 days. They met together with the team leader each morning to discuss new ideas.

After 3 days patterns of questioning respondents had developed and these were discussed. At the end of 5 days of unstructured interviewing it was fairly easy to draft a questionnaire that could be endorsed by all team members as suitable to meet the study objectives and workable with respondents. A definition of a fire was developed which included short lists of things to include and exclude. The questionnaire developed in this process was used later in an informal test and was judged to work very well.

### Personnel and Skill Requirements

A key concept in the successful use of unstructured interviewing is flexibility. The questionnaire designer functions as a researcher during this process, and must keep the objectives of the study firmly in mind, while dismissing any fixed ideas about how to structure the questionnaire.

Best results are achieved when several people work together as a team. The team should include interviewers as well as data processing and subject matter specialists. This allows diverse ideas and insights to be used in the refinement of the survey instrument.

Persons selected to conduct unstructured interviews should have interviewing experience and be capable of understanding the broad perspective of the research project for which the questionnaire will be designed. This type of interviewing requires skills different from those for structured interviewing (i.e., interviewing in which questions are read verbatim from a questionnaire), and only some interviewers on a regular field staff are likely to possess those skills.

Interviewers selected for this type of assignment should feel comfortable "thinking on their feet" as they will not have a questionnaire script to use as a crutch; if they are easily flustered or confused, they may give respondents the impression that they are incompetent or that the study is unimportant. Members of the interviewing team need sufficient experience in unstructured interviewing to be sensitive to the effects of wording changes and to recognize responses that indicate potential problems with question wording or order. In addition, interviewers should be able to tolerate long pauses while the respondent thinks or looks for answers, have the ability to probe nondirectively in order to get the respondent's ideas, and have a thorough understanding of potential problems in questionnaire design which can affect the achievement of the survey objectives.

Unstructured interviewing is actually a combined data collection and analysis process. In addition to the interviewing skill necessary for successful results, a "coder," who is capable of making independent judgments, is an essential part of the process. This person should be able to analyze and tabulate results of the previous day's work while the interviewers are in the field conducting additional interviews and then meet with them to explain how they are failing to meet survey objectives. The simultaneous conduct of these two tasks speeds up the questionnaire development process. Subject matter specialists can provide valuable insights at the frequent meetings of the team.

#### Selection of Respondents

Respondent selection for unstructured interviews generally involves purposive

rather than systematic sampling. Although rigorous scientific selection procedures are not necessary, respondents should be members of the population to be surveyed and should be fairly representative of that population.

The characteristics of people asked to be respondents for unstructured interviews may depend on the survey topic. For example, in developing a questionnaire dealing with saving habits to be administered to a national cross-sectional sample, the initial round of developmental work may include interviews with people from a variety of demographic population subgroups. During additional interviews, however, different classifications of savings habits may emerge, and it may be necessary to locate and interview persons who are members of specific categories. Thus, the "sampling" of respondents is an iterative process too--as is the questioning of those respondents. In some cases, respondents may be located by contacting community or business organizations, or by selecting residential areas.

#### The Interviewing Process

Interviewers may begin each interview by explaining that they are working on a very early phase of preparing a new survey. They should emphasize the reasons for and importance of talking to people before a questionnaire is prepared.

In unstructured interviewing, the interviewer should follow up on answers or comments that seem to have a bearing on how a concept is interpreted by the respondent or how a sequence of questions should be ordered. The interview should have a conversational flavor rather than the question-and-answer format of a formal interview. Interviewers should understand that their objective is not to collect data in the usual sense--rather it is to become aware of any difficulties that are likely to arise when the survey is conducted.

During each unstructured interview, the interviewer should record how each key inquiry was phrased, as well as the wording used by the respondent in answering the question. The interviewer should record what effect topic order had on the flow of the interview, the respondent's reaction to specific questions of interest, and the apparent level of difficulty of the inquiry for the respondent.

Tape recording, with the respondent's permission, can be useful as long as

time is available to listen to the tapes and to extract information from them.

As experience using the topic outline is gained, interviewers will develop their preferred question wording for topics. They should exchange those wordings during their meetings and then try the wordings used by others in successive iterations of interviewing.

The input of the coder is beneficial in noting ambiguities or superficiality in the responses obtained in previous interviews which require further clarification before the response can be coded. Also, the relative frequency of responses to open-ended questions, the range of conditions imposed by respondents on their answers (e.g., "it depends on . . ."), and potential response sets can be obtained from the coder's tallies. The coder's analyses and the interviewers' annotated transcripts are discussed among team members, patterns are identified, and suggestions are made concerning potential question formatting, sequencing, etc.

There is no set number of unstructured interviews that is best, nor does 5 days of unstructured interviewing guarantee a good questionnaire. Perhaps the best indicator that enough unstructured interviewing has been done is the lack of new insights and ideas on question order and wording by team members.

#### Time Requirements

The process outlined here may take longer to complete than will drafting a questionnaire without any field work. On the other hand, to the extent that it reduces bickering among participating interests or groups, it may shorten the time spent on questionnaire design. The exact amount of time involved depends on the amount of personnel who are available to conduct interviews, and the number of iterations of the topic outline, question wordings, etc., which are required before members of the questionnaire design team are confident to go on and construct a questionnaire.

In general, when the use of unstructured interviews is incorporated into the development process of a questionnaire, 2 to 8 weeks should be allowed in the time schedule. This includes the preparation time for the team leader as well as the interviewing time itself. It does not include completion of the initial questionnaire draft, which would be required regardless of whether or not this technique is used. However, drafting the questionnaire should be much less time-consuming than would

otherwise be the case, because the knowledge gained from the unstructured interviews can be quickly incorporated into the questionnaire.

#### Cost Requirements

The monetary costs associated with the use of unstructured interviews are essentially limited to the salaries of the personnel who are members of the team. Depending on the number of people involved as team members, the number of interviews conducted, and the amount of time spent in analyzing the interviews, these costs could vary considerably. In addition, other expenditures may be necessary for travel, if the interviewing site is not located near the duty station of the people working on the project.

One other cost should be mentioned here. The "burden on the public" in terms of interviewing time may be greater than if no field work is done prior to drafting the questionnaire. However, this investment of time during the development phase may be more than repaid later if the unstructured interviewing results in a more efficient questionnaire.

#### Uses of Unstructured Interviewing

Regardless of whether the final survey will be conducted face-to-face, on the telephone, or by mail, the use of unstructured face-to-face interviewing can provide valuable insights on how people respond to the topics of the survey. Benefits accruing from establishing the relevance of specific topics to the survey objectives, defining key concepts, and identifying words which have similar meaning for all types of respondents will be equally pertinent for surveys conducted through any method.

Some of the other insights gained through use of this technique, such as the specification of question order, may be unique to the mode in which the data are collected. If the final survey is intended to be conducted exclusively on the telephone, unstructured telephone interviewing could conceivably be conducted.

Several questionnaire design issues can be addressed through the employment of this technique. The specific uses of unstructured interviewing include the following:

- o Topics previously thought to be important for inclusion can be discarded as unnecessary or irrelevant, and topics which had previously been neglected can

be identified as important in fulfilling the objectives of the survey.

- o A determination can be made of whether or not the information requested in the survey is readily available to respondents, and whether or not particular kinds of questions can be asked.

- o An evaluation can be made of which topics might be especially sensitive to respondents.

- o Assistance can be provided in determining how to word particular questions so that the vocabulary is familiar to respondents and the words mean the same thing to all respondents.

- o Decisions can be made to determine whether it is preferable to use open- or closed-ended questions to obtain particular types of information, and a

range of answer categories for closed-ended questions can be specified.

- o An identification can be made concerning who in a household or business is typically in a position to respond most accurately to questions on the survey topics.

- o Suggestions can be made concerning the optimal order of survey topics and questions.

#### Conclusion

Although this description of unstructured interviewing has been in the context of developing a questionnaire, it can also be a useful tool in evaluating a questionnaire. It has several features in common with frame-of-reference probing which is described in another paper presented in this session.