

Opinion Survey Tutorial

Introduction

Opinion surveys generally are a mystery to the uninitiated and a pain in the neck for harried public relation specialists who have to conduct and decipher them for the boss or their clients. This tutorial may not be the aspirin that relieves all survey headaches, but hopefully it will help you with the basics of opinion surveying.

Why do we conduct surveys? Mostly to find out what people think about certain things that affect their lives. Hence the name opinion surveys.

In the information field, you can use surveys to measure readership of publications; audience size for broadcast programming; and the effectiveness of public relations, educational and community action programs.

Main Elements of a Survey

Let's start with the two main elements of a survey: the problem and the population. The problem is the big question or questions you want answered. Population or universe is the group from which you select the people to answer your questions.

For example purposes let's say that you want to find out how many people read your community newspaper, the NEWS. You are convinced that this journalistic marvel is widely read. But the publisher suspects that it only provides expensive canary carpeting. You are to conduct a sample survey of community members to settle the issue.

Never having conducted one of these operations you seek a guide to sample surveying which outlines these basic steps:

- State the problem in 20 words or less.
- Specify the survey population.
- Choose a sampling method.
- Decide how big a sample is needed.
- Choose the sample subjects.
- Prepare a draft of the questionnaire.
- Train your interviewers.
- Pretest the questions and interview procedure.
- Gather the data.
- Tabulate, audit and analyze the data.
- Interpret and report the results.

Some of the above steps are self-explanatory. Others require more space than available to cover them. The references listed at the end of the manual cover those steps thoroughly. Instead let's focus on those most perplexing and critical areas of sampling method and sample size.

There are 4,000 people who live in the community serviced by the NEWS. You obviously cannot ask everyone if they read the NEWS. Sampling allows you to save time and money while still getting reliable answers.

Sampling Methods

There are several sampling methods available to you. Simple random,

stratified random, cluster, systematic and quota sampling. The first is good, the second is best, the third and fourth are convenient, and the fifth is usable only as a last resort.

Simple random sampling means that everyone in the population has an equal chance of being included in the sample. To select a simple random sample of 350 people from a group of 4,000, you would use a table of random numbers. From this table you choose 350 different numbers between 0001 and 4000. You number the list of 4,000 people, and pull out those with the selected 350 numbers for the sample.

Stratified random sampling is a refinement of simple random sampling. Before a sample is chosen, the population is first divided into categories or strata, e.g. age, sex, income, education. Stratifying ensures getting enough sample subjects from within smaller groups within each category to make separate conclusions about each category. If 10 percent (400 of the 4,000) of the community's population were college graduates, you would need to include as part of your 350-person community sample 35 college graduates (10 percent of 350). You would select 35 different numbers between 001 and 400 from the table of random numbers. Then you would go to a list of all the community's college graduates, numbered serially, to select the 35 people. You would do the same thing within each smaller education category you established for the sample within the community, e.g. high school graduate, some college, etc.

Clustered sampling means that you pick your 350 community members in groups. For example, you might select 35 people by the random method from each of 10 apartment buildings randomly selected from among the 40 which exist in the community.

Systematic sampling is sometimes called patterned sampling, because you follow a definite pattern in choosing sample subjects from some population list of names. To systematically select your 350 community members, you would take every eleventh name from a community roster or similar listing.

Quota sampling is the fastest, cheapest and least reliable method. To obtain your sample, you would tell your 10 interviewers to each get responses from 35 people. The only restrictions might be that the people live in the community and that at least 10 teen-agers be included in the 35. Who gets selected for the sample is then left up to the interviewers.

Sample Size

In determining sample size, you are concerned with two things: accuracy (reliability) and confidence (risk). Other factors such as method of collecting data, interviewer bias and question structure can also influence the reliability of your results.

When you take a random sample, you are using a carefully selected part to show the characteristics of the whole population. There will always be some error, i.e. difference between the estimate provided by the sample and the percent of the whole population who reads the NEWS. However, random sampling allows you to specify ahead of time the amount of this error and the confidence you have that it will not be exceeded.

In sample surveys conducted by the country's most renowned pollsters, the most commonly used error factor, or accuracy tolerance, is plus or minus 5 percent with 95 percent confidence limits. This means that if you conducted the sample survey 100 times, in 95 of them the results will not vary from the way the entire population would have responded by more than plus or minus 5 percent.

For example, if 50 percent of the community sample said they read the NEWS, that means the actual readership may be as many as 55 percent or as few as 45 percent of the 4,000 community members.

The table below shows the size of samples you would need to achieve different levels of accuracy with 95 percent confidence. It is easy to see that when you increase the accuracy required, the size of the sample quickly mushrooms.

Size of Population	Sample Size for Reliability of:				
	± 1%	± 2%	± 3%	±4%	± 5%
1,000				375	278
2,000			696	462	322
3,000		1334	787	500	341
4,000		1500	842	522	350
5,000		1622	879	536	357
10,000	4899	1936	964	566	370
20,000	6489	2144	1013	583	377
50,000	8057	2291	1045	593	381
100,000	8763	2345	1056	597	383
500,000 to ∞	9423	2390	1065	600	384

The sample sizes indicated are for usable questionnaires, ones that can be used to analyze the survey.

For a population of 4,000 and an accuracy tolerance of plus or minus 5 percent with 95 percent confidence, you need to randomly select and interview 350 people.

Using the simple random sampling method, you selected, and got usable questionnaires from, 350 people. The survey's analysis showed that 80 percent read the NEWS.

In presenting the survey results on the NEWS to the publisher, you must tell the publisher to what degree the results can be trusted. You can say you are confident that in 95 of 100 such similar surveys the true NEWS readership is between 75 and 85 percent.

Questionnaire Construction

Putting together a survey questionnaire is like working a jigsaw puzzle

-- once you get started right, the pieces fall in place. Let's see if we can lay out the steps in getting one all together.

Questionnaires find many uses in the information field. Mostly they are used to gather facts or opinions from a survey group. Sometimes they are used to pretest the effectiveness of films, booklets, and other educational materials. Here we will focus on how questionnaires are used for surveys.

There are basically two kinds of questionnaires -- sometimes called survey schedules. For self-administered ones, the people fill out the questionnaire themselves. On personal interview ones, someone else records the answers. The main difference is that you must include directions for the respondents with the self-administered kind.

The cardinal rule is to make it easy for everyone involved in the survey while still achieving your objectives. You must think ahead. Who is going to answer the questions? How will the responses be recorded and later coded? What do you really want to find out? What kinds of statistical analysis are planned? Then use this information to construct your questionnaire and formulate the questions.

Most questionnaires take some general form and have some common elements. Usually they are printed on 8½" x 11" paper using offset, photocopy or some other form of legible reproduction. Sometimes additional materials such as 5" x 7" answer choice cards and machine scorable answer forms are used in conjunction with the questionnaire. Different colored paper is useful in keeping subject groups, before and after responses, or variations in the questionnaire separate. Light colors and pastel shades are best.

It is a good idea to print about one-third more questionnaires than the number you need completed. These will be used for training interviewers, providing sample copies, spoilage and lost copies.

Questionnaire Parts

There are three main parts of the questionnaire jigsaw puzzle which can be broken down into smaller pieces. Generally, three kinds of information are sought: identifying information at the beginning, the questions about the survey subject in the middle, and the demographic and socio-economic characteristics of the respondent at the end.

The identifying information generally includes the name or title of the survey such as, "Readership Survey for the NEWS." It allows the respondent and others to quickly identify what the survey is about. Sometimes this is followed by a statement of the general purpose of the survey and the confidential nature of the responses.

You may also find the name and address of the sponsoring agency in this section or on a cover letter if there is one. This is a big help if someone later wants to refer to the researchers for the results. Usually, there is the date the interview is completed, and a questionnaire or sample number. The date is necessary to determine if there was any variation in the data due to changes in events during the data collection period that might have influenced the responses. A questionnaire number is useful in sorting questionnaires, sequencing the

collected data and distinguishing data from different areas.

Developing the questions is the most important and difficult part of the survey schedule. Eliciting straight factual information is much easier than getting a true measure of opinions.

You have several choices as to the kinds of questions for finding out how much someone knows about a topic, or for census-type information. Each has certain advantages and disadvantages.

Question Types

Open-end questions allow the respondents to answer the question in their own words. While allowing the respondents maximum opportunity to express their viewpoint, you are faced with the problem of categorizing the responses from many people. This takes time, introduces greater possibility for coder error, and sometimes people do not remember or know how to express correctly certain facts.

Checklist or multiple choice questions present the respondents with a selection of possible answers. Their task is then to choose one or more depending on the question. The biggest advantage here is that the respondents can be reminded of possible answers that may be otherwise overlooked. In most cases it is wise to have an "other" category not given in the list. This is particularly important when pretesting a list of possible answer choices to determine if any have been left out. A large percentage of "other" responses would indicate this.

Dichotomous questions are usually of the "yes or no" and "true or false" types. You should use a "not sure" or "don't know" choice also so that the respondents are not forced into a decision if they are really uncertain. Many times this kind of question is used as a qualifying question. If the respondents answer "correctly," they are then asked to answer the remaining questions about the subject. For example, in a readership survey you wouldn't want non-readers to express their opinions of the publication's content.

Sometimes it is useful for respondents to rank items to indicate some sort of preference or perceived importance for the items. The respondents are given a list of items and asked to assign a rank (1, 2, etc.) to them.

Measuring a person's opinion can be accomplished by using different kinds of questions. The agree-disagree approach asks the respondents to indicate whether they agree, disagree or have no opinion with regard to the statement. One should try to balance the number of statements with an equal number of expected answers in the agree-disagree categories.

In addition, various verbal or numbered scales can be used. These are usually three-, five-, or seven-point scales which can be used to measure the intensity of feeling about the subject. For example, you could ask respondents to indicate how important they feel various sources of news are for them. Each source would be ranked from very important to not important, such as:

As a source of news, I consider radio:

- A. Very important
- B. Somewhat important
- C. So-so
- D. Somewhat unimportant
- E. Not important

For analysis purposes, the top and bottom two categories might be combined. Sometimes they are condensed into a three-point scale, such as important, so-so, and not important for the question.

Usually you will find it necessary to use several different kinds of questions to get the information you need. However, there are some basic things to remember about the wording of all questions.

Question Wording

Always make the questions as concise as possible -- the shorter, the better. Simple words familiar to the respondents will help achieve this. Any technical words or specialized jargon should either be replaced or defined.

The question should yield exactly the information desired, and in terms that lend themselves to tabulation and statistical analysis. A common error often made is that of overlapping categories which makes interpretation impossible. A prime candidate is when the respondents are asked to select their age category, and they are then confronted with a set of choices like this:

- A. 18-20
- B. 20-22
- C. 22-24

Which group would you choose if you were 22 years old? And how would you know how many in the 20-22 group actually belonged in the 22-24 group?

Another common problem is that of double-barreling or multiple-meaning questions that are confusing to the respondents and defy any clear interpretation of the responses. "Which medium is best for news and entertainment?" is typical. Limit each question to one and only one point.

Leading questions are ones that are worded in such a manner as to suggest or lead to the answers. "Would you say you are in favor of continued federal subsidies for Medicare?" is leading. "How do you feel about continued federal subsidies for Medicare?" is not.

Catchwords, stereotypes or words with emotional connotations should be avoided. These words -- such as, radical, Commie, pinko -- elicit strong feelings that influence how a person will respond. "Should naturalized Commie citizens be allowed to vote in the United States?" might draw a predictably heavy negative response.

Be wary of question wording that might be interpreted as reflecting on the prestige or honor of the respondent. People will tend to answer in terms of what they "ought" to think about themselves or a situation. Questions about morality, religion, race relations and other socially sensitive subjects are susceptible to this kind of problem. "Do you

favor abortions?" would not be a particularly well phrased question to ask Catholics or Pro-Life activists. A similar problem exists when questions call out responses toward socially accepted norms or values, such as patriotism and motherhood.

When feasible it is sometimes good to use check questions; that is, two questions that bring out the same fact, but are worded differently and placed in different parts of the questionnaire. These are used to check the internal consistency of the responses. "When were you born?" and "How old are you?" serve this purpose.

Question Order

How you order your questions is also very important. The main idea is to arrange them in a logical manner that will avoid confusion and misunderstanding. Keep the knowledge and opinion questions separate, but try to keep questions dealing with similar subjects together.

The opening questions should be easily answered. They should be interesting and make the respondents want to cooperate. In no way should they indicate that the questionnaire or interviewer is leading up to a sale of anything or has a special point to prove.

Personal questions about the respondents should be at the middle or end of the questionnaire. Sensitive questions should be couched with less probing questions. Information about age and income are sometimes considered very personal by respondents. For this reason, the demographic and socio-economic section which includes this kind of information is kept for the end of the questionnaire.

The demographic and socio-economic section basically asks the respondents to describe themselves. Responses to these questions are useful when cross-tabulated with other questions in describing the different kinds of people who either know something, or hold a particular point of view. Most surveys include at least questions of this type on age, sex, education, marital status and income.

It is usually a good idea to provide space at the end for the respondents to give their personal feelings about the survey subject. This is another way of letting them know that their information and observations are valuable to you. And, of course, it is always good to thank the respondents, either in writing or verbally, for their cooperation.

Surveying Methods

There are two basic ways that questionnaires can be used in gathering facts or opinions from a survey group. We are all familiar with the George Gallup and Louis Harris public opinion polls. These polls use questionnaires in a personal interview. Here the interviewer asks the questions and records the answers.

The other survey method involves the use of a self-administered questionnaire in an impersonal situation. The respondents fill out the forms themselves, either in a group setting, work place, or in the privacy of their homes.

There are many variations of each basic method, such as telephone

interviews, direct mailings, questionnaires passed out at grocery stores, post cards and tear sheets inserted in magazines, and so on. We'll focus mainly on one-on-one interviews, group settings and direct mailing situations.

Which basic approach -- the self-administered questionnaire or the personal interview -- suits your data collection purposes best? Let's look at the strengths of each one in doing opinion surveys. Keep in mind that the questionnaire must be tailored for each approach.

The main differences are that you must include directions for the respondents with the self-administered questionnaire, and you must select and train interviewers for the personal interview.

Self-administered Questionnaires

Whether used in the group setting or sent out by mail, the self-administered questionnaire is the cheapest method of surveying the population. This approach makes it easy to gather data from a large number of respondents over a wide area with a minimum number of workers in a very short time. Group sessions or direct mailings avoid the problem of hiring and training interviewers, and the relatively slow response rate of personally interviewing large numbers of people.

You also ensure a relatively high degree of uniformity of response by using a standardized approach in the group sessions. It is possible to script out the administration of such group sessions so that any variance from one session to the next is minimized. This is not possible with the personal interview. Not only do the personalities and appearances of the interviewers differ (and thus influence interview results), but all interviewers are bound to vary their technique from interview to interview.

The self-administered questionnaire also gives the respondents plenty of time to think about their answers. Group sessions do set some limits on available time, but these are usually quite generous to allow adequate consideration of each question. The respondent is not faced with the pressure of a spontaneous response as in the "eye-to-eye" situation of a personal interview.

Perhaps the greatest advantage of the self-administered questionnaire is the confidence the respondents have in the anonymity of their answers. This is particularly important where sensitive issues are dealt with in the questionnaire. People are basically honest and want to cooperate in surveys they feel are useful. But they will not give straightforward answers if they know their names will appear in the results.

Personal Interviews

In certain situations the personal interview is needed to convince people to cooperate at all in giving information on sensitive matters. Let's look at some of the other advantages of the personal interview approach.

The personal interview takes much of the burden off the respondent and places it on the skills of the interviewer in eliciting answers. Far more skill and preparation are required in conducting personal interviews than in using self-administered questionnaires. However, this

is a basic strength of the personal interview approach.

The question and answer choices can be explained in a way so that even the least educated respondents can understand what is being asked of them. This is particularly important where you need information from people of all socio-economic strata, and it is unlikely that they are all capable of completing a written questionnaire. This fact alone helps the personal interview method achieve a much better return rate and cross-section of any population than mail surveys. The typical mail survey nets less than a 50 percent return, and those returning the questionnaire are generally bunched by certain socio-economic characteristics.

Flexibility is another strong feature of personal interviews. It is possible to correct "on-the-spot" misinterpretations of the question by repeating or rephrasing it. Although questions should be worded in the vernacular of the survey population, there are always some people who will not understand the wording or the aim of some questions. The self-administered questionnaire leaves no room for clarification. Also, the interviewer has a chance to make sure that complete data is obtained from each respondent, and that no questions are omitted.

Pretesting

Whether you plan to use the personal interview or self-administered questionnaire approach, your results will be only as good as your questionnaire. The pretest is a trial run of the questionnaire to see how well people understand it and whether it gives you the information you need. It lets you rephrase questions, substitute easy words for hard ones, include additional answer choices, and even add or delete certain questions.

The pretest also gives you practice in administering the study on a small scale. If you are using personal interviews, you will find out how long it takes to complete a typical interview. The interviewers may need more training to speed up the process or some assistance in correctly recording the answers.

Members of the survey population should be interviewed in the pretest. Every attempt should be made to get a cross section of this population so that problems unique to any group are identified. This procedure also prepares the interviewers for the realities facing them during the full field study.

The situation is similar for self-administered questionnaires in a group setting. Procedures for getting the group assembled and the questionnaires answered are practiced. For mail surveys, a small portion of the survey population is sent the questionnaires. Rate of return, completeness of answers, turn around time and characteristics of respondents are some things that can be recorded from trial mailings.

However, the main value of the pretest of any questionnaire derives from discussing the questions and procedures with the respondents. You can ask them what the questions meant, what words they didn't understand, how clear were the instructions, were the answer choices appropriate or complete enough, and so on. The idea is to blend the pretesting of your questionnaire with the pretesting of the way in which you plan to use it

in the survey.

Mail Surveys

Generally, the self-administered survey is done through the mail. However, self-administered surveys also can be conducted with groups of people who are gathered together to take part in the survey.

A successful mail survey is one that gets the needed information from enough of your sample to make the results reliable. Paul L. Erdos put it this way: "No mail survey can be considered reliable unless it has a minimum of 50 percent response, or unless it demonstrates with some form of verification that the nonrespondents are similar to the respondents." The Advertising Research Foundation recommends 80 percent. Let's see what techniques you can use to reach these goals.

Several of the references cited at the end of this tutorial will guide you through the steps of a typical mail survey. But let us zero in on the key characteristics of the outer envelope, the cover letter, questionnaire, incentives, pretest and follow-up mailings that affect your response rate. We will assume that you have carefully drawn a sample from a population that represents exactly the kind of people you want to respond.

Perhaps the biggest obstacle to overcome is getting the potential respondents to open the envelope containing the questionnaire. Advance notice postcards, letters and telephone calls will alert them to the forthcoming questionnaire. A postcard or call will usually suffice, but a letter is more effective when the sample consists of VIPs, or the message is too long for a postcard, or the survey is confidential. The impact of advance notice is increased by referring to it on the questionnaire envelope. Print "ENCLOSED IS THE SURVEY WE WROTE (CALLED) YOU ABOUT" on the envelope in colored ink in the lower left hand corner.

Even without advance notice, your survey envelope will have a better chance of being opened if you follow these suggestions. If at all possible, address it to the individual using his or her full name. Be sure to include a title like Mr., Mrs., Ms., or Dr. where appropriate. The name and address should be individually typed on all envelopes. Even though this is a lot of work, it pays important dividends in increasing returns.

The name of your organization and return address should be clearly printed on the front. Use first class mail and postage stamps, even if your organization has franking privileges, metered stamps, or a business permit. Use the business reply or franked envelopes for returning the questionnaire. Since you will be paying postage, keep an eye on the combined weight of your questionnaire and envelope. A slight change in the size of envelope or questionnaire can greatly increase mailing costs. The whole idea behind these suggestions is to help the respondent distinguish your mail from junk mail or direct advertising.

Once the respondents have opened the envelope, you must arouse their interest or convince them that it is worth their time to fill out the questionnaire. Here is where your cover letter comes into play. The cover letter must create a feeling of personal communication between researcher and reader.

The text of the letter should be reproduced on official stationery that clearly identifies who is doing the research, along with the researcher's address and telephone number. This information makes it clear to respondents that it is a legitimate research effort, and that they can get further information about the survey if they want it.

The main text of the cover letter should be written in a personal vein by making liberal use of the pronoun "you" in brief, to-the-point sentences. While the precise wording and approach used must be tailored to the study's objectives and the nature of the respondents, a typical cover letter contains several items.

Start with a general statement of the study's purpose. This provides a frame of reference for what is to come later in the letter. This statement should be brief and interesting, but should not bias responses to the questions. Naturally, people want to know how and why they were selected for the study. Here you can indicate the main criteria for selecting particular individuals from a given population. This ties in with two more elements of the cover letter, namely the importance of the respondent's cooperation and the assurance of complete confidentiality.

People must feel it is worth their time to fill out the questionnaire. This can be accomplished by pointing out the value of their replies both from an individual worth and from sampling points of view. Reassurance of confidentiality is important since most questionnaires are keyed for follow-up mailing and other purposes. Use of key numbers or other identification does not permit you to ethically state that they can be assured of anonymity, although you obviously have no plans to associate names with responses.

Include some reference to how much time is involved. However, when you state, "It should take only a few minutes to answer the questions," be sure it doesn't take longer even for the slowest respondent. Such a statement, coupled with a long, difficult appearing questionnaire, will almost certainly result in a nonresponse. Honestly is the best policy. A promise to send a copy of the final report often will get people to invest a greater amount of time, since they are personally interested in the results of the survey.

Mention the enclosed, postage-free return envelope. This reminds the respondents of how easy and cost free returning the questionnaire is. Often people feel obliged to complete the questionnaire, or even return an incomplete one if you provide return postage.

A simple "thank you" is always an appropriate way to end the cover letter. It shows appreciation for people taking time to read the letter, and usually, completing the questionnaire.

With mail surveys, it is doubly important that all questions are necessary, easily understood, take up a small amount of space, and can be answered with a minimum of instructions. Here are some pointers that will help create the "short and easy" look.

As a rule, the rate of return increases as the size of the questionnaire decreases. A questionnaire of monarch size (7" x 10") will draw more returns than a letterhead size (8½" x 11") one. Likewise, the fewer the

pages, the higher the percentage of return. Four pages, front and back, is generally the upper limit to consider, but it is better not to exceed two pages. Always establish the questions you want to ask, rather than determining how many pages you want to fill.

Use good paper stock, but avoid using colored paper unless you want to separate respondent groups. Then use only pastel shades which do not hinder readability. The printing must result in clear reproduction which makes the questionnaire easy to read. Also, use white space and other layout techniques to help readability.

Questions can be made to appear easy to answer. Use mostly multiple-choice or closed-end types of questions. Also, always provide a "no answer" or "not applicable" choice. Open-end types of questions make the respondent work, spend more time, and often decide not to complete the questionnaire. Most questions should not require any specific instructions, thus saving valuable space.

In most cases, you will want to consider follow-up mailings to nonrespondents. Normally, surveys can be closed out after three or four weeks. Your first follow-up mailing should go out 10 to 14 days after the initial mailing. Additional mailings are usually not worth the time or money. Questionnaires mailed in each wave should have a key number which matches a number and associated respondent on a master list or card file. A daily accounting of returns shows where you stand on total returns, and who has not cooperated. Although invisible ink and other clever means are sometimes used to key questionnaires, it is generally advisable to put a clearly visible number or mark in some not too inconspicuous place on the questionnaire. The reason most people do not return the initial questionnaire is they simply mislaid it or forgot to answer it.

The pretest is one way of ironing out many problems before doing your full scale mailing. By selecting a random sample of your survey population for the pretest, you can check the rate of returns, test the quality of your mailing list, review question wording and usefulness of the information, and evaluate the effectiveness of different techniques (e.g. incentives, advance letters and calls) on the rate or return.

Conducting the Personal Interview

In a nutshell, an interviewer's job is to get specific, complete and unbiased answers from survey subjects. First, let's take a close look at the problems an interviewer faces, and how a good one gets the job done. Then we will relate this information to selecting and training interviewers.

A typical face-to-face, personal interview involves an introduction, asking the questions, eliciting or probing for complete answers, recording the responses, and checking the results. Sometimes the interviewer also selects the survey subjects according to some sampling scheme.

The interviewer's introduction or approach to the subject sets the stage for the questioning. It should be brief, casual and polite.

You want to put respondents at ease and create a friendly atmosphere.

They must have the feeling that they can give frank opinions with complete anonymity. If asked, the interviewer should produce an introductory letter from the survey sponsor, or other identifying credentials. Fear of association of names with responses can be overcome by assuring respondents of complete anonymity. Also, it is helpful to point out that there are no right or wrong answers to the questions.

The interviewer should maintain a friendly, courteous and informal manner throughout the interview. However, the interviewer must maintain the flow of the interview at all times. This means discouraging idle conversation and discussion of the questions, and getting through the questionnaire quickly and completely.

Once rapport is established, the interviewer must concentrate on asking the questions. Pretesting the wording and careful ordering of the questions in the survey questionnaire are basic to a successful interview, but they also place certain requirements on the interviewer.

The questions must be asked exactly as worded. Variation from the pretested wording or any impromptu explanation of question meaning may change the frame of reference and bias the response. Repeating the question usually is the best way to respond to any queries regarding the question. In repeating, never suggest a desired reply by emphasizing certain words in the question or possible answer choices. Often, people who don't understand a question welcome some hint from the interviewer.

Also, it is important to ask questions in the same order as they appear on the survey questionnaire. Sometimes, earlier questions set the stage for later ones. Likewise, all questions must be asked unless specifically indicated in the directions. Failure to obtain answers to demographic questions such as age, sex or education can restrict analysis of the data and interpretation of the findings.

The most difficult part of the questioning is getting the respondent to give complete and specific answers to the questions. Unless they have really thought about an issue beforehand, most people have a tendency to hedge or qualify their answers. Some just have a hard time interpreting the question. Written instructions and training that emphasize the purpose of each question and give exposure to inadequate replies prepare the interviewer for these situations.

Skillful probing can also change initial "don't know" responses into valuable, specific observations. People usually say "don't know" when they are unfamiliar with the subject, are not interested, don't understand the question, don't want to reveal their feelings, or just don't hold an opinion. Here, the interviewer must be careful not to call forth replies that the respondent will give simply to please the interviewer.

Accurately recording the answers while maintaining a steady flow in the interview is another critical area. If the survey questionnaire is highly structured with answer choices provided, then the interviewer simply checks the appropriate box or blank. Interviewers must be sure that they have checked the right one, and that all questions are answered. A quick visual check of the questionnaire while the respondent is still present should be standard procedure.

For less structured or open-end questions, verbatim recording of responses is required. Exact wording to catch any nuances of meaning is the key. Any paraphrasing, incomplete wording, polishing or summarizing destroys the value of the response. Plus, you lose many colorful statements that are useful for illustration purposes later.

Careful pretesting of the questionnaire and training of interviewers are the main precautions to take in eliminating biased survey results. However, bias can still slip in through the sampling process and attendant human frailties in the interview situation. Although some surveys specify sample subjects by name, address, or phone number, more frequently the interviewer also must select the subjects according to some designated sampling scheme.

Even though interviewers are completely familiar with how to select subjects in a certain area, there is a tendency to pass over certain kinds of potential respondents. Unpleasant, uneducated, physically impaired and other types of people are skipped, while well-dressed, pleasant, cooperative looking people are selected. To partially solve this problem, set informal quotas on the numbers of people in various age, occupational, and location groups for your interviewers. Prescribing which person or what dwelling will be selected also takes the freedom of choice away from the interviewers, and helps cut down on subject selection bias.

Interviewer bias, i.e. systematic differences between each interview session, cannot be totally overcome simply by hiring impartial interviewers or by further training. The interview situation itself involves how two people perceive each other. Even though interviewers dress inconspicuously, conduct their interviews privately so that others don't influence the response, and do everything possible to achieve rapport, there will still be some bias.

The greatest single sin interviewers can commit is not checking over their survey questionnaires to make sure they are completely answered. Considering the time and expense involved, a single unusable questionnaire has a tremendous negative effect on efficient use of available funds and manpower, and the final outcome of the survey.

So, how do you ensure that you select the right people for interviewers and give them the proper training? One authority on the subject of selecting interviewers says they must have four basic attributes: intelligence, drive, appearance and manner. Honesty is assumed.

Intelligence is needed to fully understand directions and objectives of the study. Likewise, ingenuity and ability to meet problems out in the field also require a kind of intelligence not always associated with college or other formal schooling. Drive is needed to stand up in the face of adversity, such as hostile respondents, weather and deadlines.

An ordinary appearance free of unpleasant physical characteristics and a mode of dress consistent with basic standards do much to overcome interpersonal biases. Likewise, a personable manner that is likely to ensure friendly cooperation is basic to successful interviewing.

Face-to-face practice using the interview questionnaire out in the field is the best training. Not only do interviewers get a taste of reality,

but they can identify problems they have in administering the questionnaire. Likewise, the survey director can check such things as completeness of responses, accuracy in recording, time needed to do the interview, nature of subjects selected, etc. Based on the results of the trial run, unsuitable interviewers can be released and additional training given to members of the interview team.

Demonstrations of actual interview situations, problems encountered and proposed solutions are useful supplements to, and sometimes a substitute for, actual trial runs in the field. Usually the survey director, the survey staff, and the interview team members play the roles of interviewer and subject. Typical interview situations are acted out to make various teaching points.

The keys to successful interviewing again are, a well-designed and pretested survey questionnaire, a suitable sample procedure, and carefully selected and thoroughly trained interviewers.

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