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Questionnaire Surveys

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'I Know! I'll Do a Questionnaire!'

It's close to midnight and you're in a sweat. Tomorrow you have to hand in the proposal for your undergraduate dissertation. You know that you want to do something on the increasing socio-economic status of many inner London neighbourhoods (a process known as gentrification), but you're not sure how to do it. You must prove to the examiner that you have done some actual fieldwork. Then it comes to you in a flash of inspiration (or perhaps because you can't be bothered thinking about it any more) – 'Of course! I'll do a questionnaire!' You collapse into bed for a contented night's sleep.

So far you have made two crucial errors. First of all, you have only defined an area of research and not a specific research problem. What is it that you want to know about gentrification? What is your research question? For example, you might ask why gentrification occurs where it does, or who is doing the gentrifying and why, or what are the feelings of working-class residents about the social change taking place in a neighbourhood. Each of these questions would require a different research method and different sources of information.

The second crucial error, and this often applies even where the research problem is well defined, is the assumption that a questionnaire is the best method available. That is because it has come to be associated with

so-called 'hard' social science involving large surveys and statistical analysis. All too often the questionnaire is seen as the cure-all for the problem of doing fieldwork. However, a questionnaire is only effective when it is the *most appropriate method* of providing the information needed to address a *well-defined research problem*. Let us say, for example, that you are interested in finding out whether gentrification is a back-to-the-city movement of the suburbanized middle class or a within-city movement of middle-class residents who are choosing not to suburbanize. You will have to know where gentrifiers have come from (i.e., their previous addresses). A questionnaire survey of residents in the Docklands in London might seem like the obvious way of getting the information. However, other sources of information may be available. For example, you may be allowed access to local estate agents' records which will list purchasers' previous addresses. This would be a simpler and less costly way of getting the required information.

Even when it has been established that a questionnaire survey is the most appropriate method of gaining the information to address the specific research question, success is not guaranteed. The success or failure of a questionnaire survey is determined by three things: (1) the sampling theory, i.e., are you asking the right people; (2) questionnaire design (wording of the questions, layout of the questionnaire, etc.); and (3)

analysis and interpretation of the results.

'A survey is a method of collecting information directly from people about their feelings, motivations, plans, beliefs, and personal, educational, and financial background' (Fink and Kosecoff 1985). Surveys can take the form of questionnaires or interviews. Questionnaires are distinguished from interviews by the fact that they are either self-administered (i.e., filled in by the respondents themselves, as in a postal questionnaire) or filled in by a researcher (in person or on the telephone) with no prompting or interaction with the respondent other than to ask the questions themselves. Interviews, in contrast, whether formal or informal, involve more dialogue between interviewer and respondent. Interviews tend to delve more deeply into people's attitudes, beliefs and feelings (see chapter 41 by Jacquelin Burgess in this volume). They usually involve qualitative analysis of the information gained (often in the form of case studies), whereas the information gained from questionnaires is usually subjected to quantitative analysis involving statistics.

Sampling

A questionnaire survey starts with the definition of the population of interest and procedures for contacting a sample of that population, and ends with the analysis of the data from the questionnaires.

When conducting a questionnaire survey it is seldom possible to question all the members of the population of interest. In the example above it would be too expensive to question all the residents of the Docklands. A sample of the population must be taken. To do this you must have a clear notion of the population of interest. Unless you know that, the sample is meaningless. Ask yourself, 'Who should be asked and how do I contact them?' What is the sampling frame that is appropriate to the population you are interested in (e.g. electoral rolls, telephone directories, trade directories, tax registers)?

Does the sampling frame fairly represent the study population? For example, in Britain the electoral register is the traditional way of sampling residents in a neighbourhood, but it only records those residents who are over the age of 18 who have registered to vote. The most appropriate way of selecting households or individuals from your sampling frame is determined by sampling theory. The aim of sampling theory is to avoid bias and ensure that your sample is as representative of the total population of interest as possible. There are a number of sampling methods, and by consulting the textbooks you will be able to decide which is the most appropriate for your study. The size of the sample is also important. It is necessary to allow for non-responses, especially in postal questionnaires. The general rule on sample size is 'the bigger the better', and the upper limit is likely to be set by practicality, e.g. how much postage you can afford, how many streets you are willing to walk. For most statistical tests the minimum sample size is 30.

All these questions can be resolved by applying common sense to your particular research question and by consulting the textbooks (especially Dixon and Leach 1978, for an introductory guide; Fink and Kosecoff 1985, for a straightforward account; Moser and Kalton 1971).

Finally, if you are doing a residential questionnaire, which member of the household is to answer the questions? If you are doing such a questionnaire in person, unannounced, pay a visit to the local police station before you start, so that they know you are in the area, and always carry identification.

Analysis and Interpretation

You will have to follow the procedures laid out in the textbooks (especially Wrigley 1985; Clark and Hosking 1986) to help you process, analyse and interpret results of the survey. You might have a fantastic question-

naire, with a high response rate, and then ruin your study with poor analysis. Do not necessarily leap for the most sophisticated software. Statistics must be used critically. Within limits there is probably a statistical test that will do anything you can think of. The problem is knowing what it is you are looking for rather than knowing about the statistics. When you have got the problem straight, then you can look up the appropriate statistics in a textbook.

Questionnaire Design: The Difficult Middle Bit

As I have argued, sampling and analysis are dependent on getting the research problem straight and then referring to the appropriate textbooks. The most difficult part of a questionnaire survey is stage (2), collecting the information, and so this stage will occupy the rest of the discussion.

The form of your questionnaire will differ according to whether it is postal or interview. Deciding between the two will probably be determined by the nature of your study and practical limitations. For example, if potential respondents are scattered all over the country, then a postal questionnaire is the only practical method. If you are in a position to choose between postal and interview questionnaires bear in mind the following pros and cons of each method.

Postal questionnaire: pros and cons

PROS

- 1 It cuts down on travelling time and leg-work.
- 2 There is no interviewer bias.
- 3 It gives the respondent time to answer difficult questions.
- 4 It is good for personal and embarrassing questions.

CONS

- 1 The questions must be easily understandable and unambiguous – this requires a lot of work in the design of the questionnaire (see below).
- 2 The answers cannot be rechecked with the respondent.
- 3 There is no respondent spontaneity.
- 4 The respondents can see all the questions before answering, which gives them an insight into the line of your questioning, and they may therefore tailor their responses to fit your reasoning, so biasing the responses.
- 5 Who is answering? Even if you are specific in your instructions about who should answer, you can never be sure they have been followed.
- 6 Supplementary observational data are not available. If you are actually there you can see what the respondents look like, how they respond to the questions and what their environment is like. This is useful contextual information for the survey.
- 7 There is a low response rate and waste of resources. Response rates for postal questionnaires tend to be low. A response rate of 30–40 per cent from a survey of residents in an ordinary neighbourhood is considered good. Rates may be higher if you are surveying a particular interest group (e.g. other geography students) or if there is something in it for the respondents (e.g. you are using the information to promote their grievances or offering gifts for responding). This last possibility is an unlikely one for a geography student.

To achieve the absolute minimum requirement for statistical analysis, a sample size of 30, you would need to send out at least 100 questionnaires, given average response rates. That means at least 200 postage stamps – two for each respondent, one for the outgoing questionnaire and another on the self-addressed envelope enclosed with the

questionnaire so that the respondent can send the completed questionnaire back to you. You may also want to send out reminders after a couple of weeks or so. It is easy to see how the costs mount up. If you can hand deliver or collect all or some of the questionnaires this will help reduce costs but of course will be a drain on your time. It is important to give people sufficient time to fill in the questionnaire before sending reminders. You should allow them at least one weekend.

As well as the self-addressed envelope the postal questionnaire should be accompanied by a covering letter from your academic institution. This letter should explain who you are, the purpose of the survey, how they have been selected for the survey and the reason they are being approached. A guarantee of confidentiality is also essential. Don't be officious but, equally, don't be apologetic. An example of a covering letter is given in figure 40.1. It is not a formula to be followed rigidly, but the tone is important.

Good layout of the questionnaire and the ordering of questions is essential, especially for a postal questionnaire, and this will be discussed later.

Questionnaires administered by the researcher: pros and cons

PROS

- 1 There is a higher response rate than for postal questionnaires.
- 2 Fewer resources are needed, provided that travel is minimal.
- 3 You may get positive feedback on the design of the questionnaire, so that you can adapt the design as you go.
- 4 It provides the chance to clarify the questions.

CONS

- 1 It is time-consuming.
- 2 It may be inconvenient for the respondent.

- 3 You may invade a person's privacy.
- 4 There is the problem of you, the interviewer: commercial polling organizations rarely employ students since they are the last people likely to get a sympathetic response. Don't let this last point put you off. Good interviewing depends on the personality of the interviewer as much as age or sex. It also depends on a well-constructed questionnaire which, as already mentioned, is crucial for postal questionnaires too. So we now turn to the issue of questionnaire design.


Questionnaire Design: Committing Yourself to Paper

There are no hard-and-fast rules for questionnaire design. It will vary according to the nature of the topic and the people who are to be canvassed. Thus a well-crafted questionnaire is a product of a clearly defined research objective, a sensitivity to the potential respondents, trial and error (using a pilot survey or, if that is not possible, by passing the questionnaire around friends, family and colleagues to make sure that they understand the questions in the same way that you do) and, the most valuable commodity of all, *common sense*.

Although there are no golden rules for questionnaire design, there are some handy hints based on the past experiences (and mistakes) of other researchers.

Asking the right questions

Questions of content are made much easier if you have thought about your objectives and about the final method of analysis. One of the biggest mistakes made in dissertations is the reliance upon meaningless questions. How do the terms in the question relate to the abstract categories of your analysis? Have you included all the necessary questions and are all the questions necessary?

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Direct line:

30th March, 1990

Dear Resident,

I am a Geography student at Oxford University and am currently doing research on the social changes occurring in the Sands End area.

The views and experiences of local residents, such as yourself, are a crucial part of the research. Your address is one of a number that have been chosen on a chance basis. It would be of great help if any one member of your household, aged 18 or over, could spend a few moments filling in the brief questionnaire enclosed.

All the information you give will remain anonymous and confidential. It will be covered by the Data Protection Act.

A stamped/addressed envelope is provided for you to return the completed questionnaire by post.

I hope you can find the time to help me with my research.

Yours faithfully,

JANET address: GEOGMAIL @UK.AC.OXFORD.VAX

Figure 40.1 Specimen letter of introduction

4a Is your home ... ?

(please tick)

- ☐ owner occupied
- ☐ privately rented (furnished)
- ☐ privately rented (unfurnished)
- ☐ rented from the council
- ☐ rented from a housing association
- ☐ other (please state)

Figure 40.2 An example of a closed question.

Asking the right questions in the right way

There are four main considerations here: (1) the type of answer required, (2) the words themselves, (3) bias and (4) ambiguity.

(1) *Is the type of answer required fact, opinion or attitude?* Different question formats will be appropriate for the different types of answer needed. Closed questions (like multiple choice questions in an exam) are often suitable for factual questions (see figure 40.2). Closed questions have the advantages that they are quicker for the respondent to fill in, are more precise and are easier to analyse. They are also easier to code. Coding means giving a number to each of the possible responses so that the answers can be fed into the computer. Instructions on coding can be found in any survey textbook.

Attitudes can sometimes be recorded using a closed-question format in the form of a rating scale. Rating scales come in various guises (e.g. nominal, ordinal, interval,

graphic, comparative, additive) depending on the sophistication of the information required. The tenure question (figure 40.3) is an example of a nominal or categorical rating scale. Again, this is textbook stuff. It is important to note that the form of the answers, whether categorical (yes/no), continuous (age) and scaled (using diagrams), has relevance for the type of statistics that can be used. An example of a rating scale to capture attitudinal information is given in figure 40.3.

Sometimes questions have no obvious answers or you may want the respondents to answer in their own words. In this case open-ended questions must be used. These can always be coded afterwards. An example of an open-ended question is found in figure 40.4.

(2) *The words themselves.* The second element of good questioning is using the right words. Keep them simple. Use everyday words that have immediate meaning to people and avoid jargon and

15 Do you have a feeling of community, living here in Sands End? (please tick)

☐ a strong feeling of community

☐ some feeling of community

☐ no feeling of community

☐ don't know

Thank you very much for your help in this study.

Figure 40.3 An example of a rating scale to capture attitudinal information.

specialized words (unless you are surveying a specialized group of people where those words have specific and acknowledged meanings). Even apparently simple terms like 'friend' and 'community' may mean quite different things to different people. In general, do not use a complicated word where a simple one will do; for example, 'live' is better than 'reside'.

(3) *Bias*. Certain names, places or phrases are emotionally charged and they can unfairly influence questionnaire responses. For example, a questionnaire of geography students might ask:

- 1 Would you attend a lecture given by Dr Spock?
- 2 Would you attend an 8:00 a.m. lecture given by Dr Spock?
- 3 Would you attend an 8:00 a.m. lecture given by Dr Spock, the expert on soil profiles?

Options 2 and 3 add more information, but they may also bias the answers.

Another source of bias is when you as researcher are unaware of your own position on a topic. You need to check for this by showing the questionnaire to your friends

and family, and people you know less well, to get a range of reactions to the questions. A fairly blatant example of researcher bias in the gentrification study might be the question, 'in what ways do you think yuppies have ruined the neighbourhood?'

Bias may also be introduced by asking questions that are too personal. Asking the respondents 'How much do you earn?' may bias answers upwards, or, at worst, put respondents off altogether. Often alternative formats can be used to cope with questions that are too personal. In this case listing a number of income brackets (£000–£9,999; £10,000–£19,000) for the respondent to indicate which band he or she falls into would be a more sensitive way of asking the question.

(4) *Ambiguity*. Ambiguous questions are usually ones that contain more than one thought. For example, 'do you think that the local government should cut its education or sanitation programmes?' This question is vague as well as ambiguous. It contains two thoughts (cutting education and sanitation). It is also not clear whether it is asking whether education in general or sanitation in particular should be cut. The easiest way to avoid ambiguous questions is to follow

This last section asks about your opinions of Sands End as a place to live.

13 What are the advantages and disadvantages of Sands End as a place to live?

Please make your answers as full as possible.

Advantages

Disadvantages

Turn over

Figure 40.4 An example of an open-ended question.

the rule of 'one thought per question'. More than one thought requires additional questions.

Asking the right questions, in the right way, and in the right order

Ordering of questions is important, especially for a postal questionnaire in which you

need to grab potential respondents' attention and keep it without putting them off. Easy factual questions usually come first. This helps respondents relax into the questionnaire and, often, helps you establish who they are. More complicated material should come later. Sensitive questions should be put towards, but not at, the end. Questions should follow a logical order. Where you

Q21d How often do you see this person? (please circle)
 daily / weekly / monthly / yearly / rarely

Q21e Where do you usually meet?

Q22a Think of your favourite evening's entertainment.
 Who (other than your wife/husband or partner) would
 you most like to be with you on such an evening?

Q22b Which of the following terms (please circle)
 best describes this person?
 relative / co-worker / neighbour / friend /
 acquaintance / member of same organization

Q22c Where does this person live? (please circle)
 Sands End / elsewhere in Fulham /
 elsewhere in London / elsewhere in UK / abroad

Q22d How often do you meet this person? (please circle)
 daily / weekly / monthly / yearly / rarely

Q22e Where do you usually meet this person?

Q23 What are the advantages and disadvantages
 of Sands End as a place to live?
 Please make your answers as full as possible.
 Advantages

Figure 40.5 An example of a poorly laid-out questionnaire

8e Where does s/he work?
 work establishment location (street / district / country)

9a Do you have any children?
☐ yes – continue Q9 ☐ no – go to Q10

9b How old is/are your child/children?

10a Do any members of your family, friends or relatives live
 in Sands End, apart from those who live with you?
☐ yes – continue Q10 ☐ no – go to Q11

10b For those people connected to you who live in Sands End
 but not in your home, please state the type of the
 relationship in each case (e.g. brother, cousin, friend)

11 Which of the following 2 statements (please tick)
 below comes closest to your opinion?
☐ The most important job for the government is to
 make certain every person has a decent steady job
 and standard of living.
☐ The most important job for the government is to
 make certain that there are good opportunities
 for each person to get ahead on their own.

Turn over

Figure 40.6 An example of a well-laid-out questionnaire

have to change a line of questioning or where you are asking background questions that respondents might feel are unrelated to the central topic, explain briefly why you are doing this. In general proceed from the most familiar to the least.

Questionnaire layout: you've got the look

Good layout is essential for a postal questionnaire. It must be clear which questions are to be answered and how they are to be answered. Do not try to save paper. Again, common sense is the best guide. Questionnaires that are cramped, with poorly defined sections, are likely to be binned. One such poorly laid-out questionnaire (figure 40.5) and one with a better layout (figure 40.6) are given as examples. Questions are in bold type and the level of detail required in each answer is directly specified. Rarely will all questions apply to each respondent. Filters must be used. Filters are used in figure 40.6. Arrows are also useful in guiding respondents through filters. However, they can only operate successfully if the questions they are directing the respondent to are actually on the same page.

Underlining sections, or even single questions, gives a compartmentalized visual image that looks tidy. It also gives the respondents a greater sense of accomplishment as they complete each section. Don't forget to ask respondents to turn over the page. There is nothing more frustrating than receiving a carefully completed questionnaire with the back page blank because the respondent did not realize that he/she had not finished. Number each page for the same reason.

Length. Up to a certain point the length of a postal questionnaire does not seem to be a serious deterrent. It is whether the questionnaire interests the respondent and looks good that counts. It should be as short as reasonably possible, all other things being equal. This requires precise questioning and relevance at all times (with the

exception of dummy questions used to soften up respondents for difficult questions). It is possible to be too short, through peremptory questioning or trying to cram questions into too small a space. This will only irritate respondents. Precision and relevance are the watchwords.

Length may appear to be less of a problem for interview questionnaires, but you will probably find that you will often be asked, 'How long will this take?' Don't understate the length. If you feel panicky and are afraid of losing a respondent, say that you can end the questioning whenever he/she wishes. Respondents rarely cut you dead half-way through unless they really have to go or unless, of course, you have offended them or bored them rigid.

And Finally...

Questionnaire surveys should be enjoyable. You are conducting original research and discovering more about people. You will probably be pleasantly surprised by how cooperative they are. And remember, the best questionnaire asks precise questions, of the right people!

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Further Reading