Resources for Chapter 11

Versions of computer assisted interviewing (CAI) (p.253)

- **CAPI (Computer Assisted Personal Interviewing)** This is used when administering a questionnaire face-to-face. The interviewer reads questions from the screen (which the respondent cannot usually see) and responses are typed in to designated fields.

- **CATI (Computer Assisted Telephone Interviewing)** This is a similar setup to CAPI and is used in telephone interviews.

- **CASI (Computer Assisted Self Interviewing)** This is used particularly when questions are of a sensitive nature, such as relating to crime and offending or sexual behaviour and attitudes. Respondents are given the laptop and are able to enter their responses themselves. It is thought to increase the validity of responses, as respondents are more likely to give truthful answers (whilst the interviewer cannot see what they are doing).

- **Audio-CASI** In a manner similar to CASI, this allows respondents to enter their responses themselves, without the interviewer being able to see. Here, the respondent listens to the questions being asked through headphones, rather than reading them on screen, so nobody present in the room knows what question has been asked. This is the most ‘private’ mode and is used in surveys that contain questions of a very sensitive nature.

(based on the Question Bank Fact Sheet 8: Computer Assisted Learning, Centre for Applied Social Surveys. http://surveynet.ac.uk/sqb/datacollection/caifactsheet.pdf. Question Bank material is now available from http://surveynet.ac.uk/sqb/)
Examples of research using computer assisted interviewing (p.253)


Compares computer-assisted self-interview (CASI) with routine face-to-face interviews for sexual history taking from patients in a clinical setting.

Examples of Internet surveys (p.256)

Galloway, S. P. (2008). *New Zealand recreational river use study: Specialization, motivation and site preference*. Dunedin, New Zealand. School of Physical Education, University of Otago. The findings of a survey of individuals who recreate on and around rivers in New Zealand. They were invited to participate in this Internet survey via direct contact at river recreation-related events and electronically via a range of related web sites, group membership, and internet bulletin boards, etc. Over a thousand respondents completed the survey.


Raziano, D. B., Jayadevappa, R., Valenzula, D., Weiner, M., & Lavizzo-Mourey, R. (2001). E-mail versus conventional postal mail survey of geriatric chiefs. *Gerontologist, 41*(6), 799-804. This study compared the response time, response rate, and cost of two types of survey administration techniques: e-mail/web-based versus conventional postal mail. The main aim of the survey was to collect descriptive information on the existence of Acute Care for Elders units and their characteristics by surveying geriatric division chief administrators.


A wide-ranging review of response rates for surveys in the field of health (McColl et al., 2001) noted that experts differ in their views on what constitutes an adequate response rate, and made no overall recommendations about desirable rates. For example, Fowler (1993) recommends a minimum 75% response rate for surveys, while Bowling (2002) describes a 75% response rate as 'good'. Mangione (1995) states that for postal surveys a response rate of 70–84% is very good, rates of between 60% are 69% are acceptable, but 50–59% is 'barely acceptable'. Badger and Werrett (2004), reviewing published research in three peer-reviewed nursing journals in 2002, found that while of those reporting response rates over three-quarters had response rates of 60% or more, half of the papers did not report a response rate. This gives the somewhat mixed message that while a figure of about 60% was generally considered acceptable; omitting details of the response rate was no barrier to publication.

However, response rate is important and good practice would indicate its reporting in all cases. The logical problem is that if people have not responded we do not know what their response would have been, unless we can find out by other means (e.g. interviewing those who didn't respond to a postal questionnaire). The 'other means' tend to be very time-consuming, but unless we can do something along these lines we have little basis for assuming that responders and non-responders are similar. It has been demonstrated by simulation techniques that even moderate differences between respondents and non-respondents call for a response rate of about 90% if biased estimates are to be avoided (Jones, 1995; cited in Mertens, 2005 p. 197).

There is an extensive literature on how to reduce non-response (e.g. Pickery, Loosveldt and Carton, 2001; Tuckel and O'Neill, 2002). McCarty, House, Harman and Richards (2006) show, in telephone surveys, the effects of factors like survey length (e.g. a ten-minute increase resulted in a 7% decrease in the response rate) and time devoted to interviewing. Van Geest, Johnson and Welch (2007) carried out a systematic review of reports of efforts to improve response rates to physician surveys (often characterized by low response rates). They corroborate many of the factors included in box 11.5 of the text. For example use of first-class stamps on return envelopes, and questionnaires designed to be brief, personalized, and endorsed by legitimizing professional associations, were more likely to be successful. Even small financial incentives were found to be
effective in improving physician response, while token nonmonetary incentives were much less effective (see Ryu, Couper and Marans, 2005 for details on the effects of incentives). In terms of design strategies, postal and telephone strategies have generally been more successful than fax or Internet-based approaches. Lynn (2003) describes a method of collecting very limited survey data from non-respondents to personal interview surveys and a large-scale field test of the method. He shows that it is acceptable and low cost, provides valid data, and has no detrimental effect on the main survey.

References


Decline in willingness of people to participate in surveys (p.267)

Participant non-cooperation is a growing problem, particularly for survey research. Curtin, Presser and Singer (2005), for example, showed that the decline in response rates in the last decade was significantly steeper than in the previous one. While self-completion survey questionnaires have always been faced with the problem of low response rates, it is increasingly difficult to obtain adequate rates with interview-based methods. Telephone interviewing in general results in lower response rates than face-to-face interviews (Holbrook, Green and Krosnick 2003) and is now facing additional challenges, including the growing irritation caused by unsolicited calls, and technological developments which give greater control to respondents, hence increasing the difficulty of getting in contact with them (de Leeuw and Hox, 2004; Dillman, 2002).

Kolar and Kolar (2008) suggest that some of the techniques efficient at increasing response rates can have potentially adverse effects on long-term relationships with respondents. Examples are persuasive efforts that threaten violation of the informed consent principle (Groves, Cialdini and Couper 1992) and unintended consequences of incentive payments which can reduce quality of response (Singer, Van Hoewyk and Mahe, 1998). They consider that:

> It is hard to imagine that the use of compliance techniques like foot-in-the door or multiple refusal conversion calls can be beneficial for long-term cooperative relationships. In fact, these techniques are more likely to be a symptom of ‘response rate tyranny’ further alienating respondents in the long term (Schulman 2003). (p. 364)

Kolar and Kolar propose that, rather than a narrow concern for enhancing response rates, the focus should be more on the development of cooperative relationships with respondents. Using qualitative methods (focus groups and semi-structured interviews) they explored participants’ expectations of telephone surveys. They found that a decision whether or not to participate in a telephone survey was primarily dependent on three factors. Firstly, the ‘beneficial purpose’ - some participants noted that the information collected is of prime benefit to companies, not to participants; they are only beneficial to participants if such information is seriously considered and actually implemented. Secondly, the personal relevance of the topic, and thirdly their relatedness to
the research agency or people who work for it. The negative side of telephone interviews is the perception that respondents are treated as objects, reduced to numbers, and therefore exploited.

Their results were limited to views in one country (Slovenia) but provide useful suggestions for ways in which trends in non-response might be modified by a concern for fostering longer term cooperative relationships by survey researchers.

References


Examples of research projects using diaries as a data collection method (p.274)


Gavin, H. (2006). Intrusive music: The perception of everyday music explored by diaries. The Qualitative Report, 11(3), 550-565. Describes research investigating the perception of intrusive music. Participants were directed to record diary accounts of episodes in which music was played in instances when they were not in control of the decision to play the music or any characteristic of it, and to record various items about the music, together with any effects on themselves.

and lost production due to illness and treatment. It was then applied in two randomized clinical trials evaluating the cost-effectiveness of behavioral rehabilitation with low back pain patients.
A. Selecting a simple random sample

1. Obtain the population list (i.e. the complete set of persons eligible for inclusion in the sample – say 1200). Arrange the names in alphabetical order and number from 1 to 1200.

2. Decide on the required sample size - say 90.

3. Use the Randomizer to randomly select 90 numbers from 1200.

4. Participants with names corresponding to the numbers selected are your sample.

B. Selecting a systematic random sample

1. Obtain the population list (i.e. the complete set of persons eligible for inclusion in the sample – say 1200). Arrange the N names in alphabetical order and number from 1 to 1200.

2. Decide on the required sample size, n - say 90.

3. Compute the sampling fraction N/n ( = 1200/90 = 13.3).*

4. Using random number tables, or some other means, randomly select a number between 1 and 12, say 7. Calculate the sample, selecting first the 7th name on the list, then the 19th (= 7 + 12), 31st (= 19 + 12), etc. until you reach the end of the list.

5. Participants with names corresponding to the numbers selected are your sample.

* If, as in this example, the result is not an exact whole number, round the number down (here 13) leading to selecting a slightly larger sample.

C. Selecting a proportionately stratified random sample

1. Divide the overall population to be studied into a number of sub-groups (strata), say males and females.

2. Obtain population lists for each sub-group (say 900 males and 600 females). Arrange each set of the names in alphabetical order and number separately.
3 Decide on the sample sizes required. Say the total sample required is 120. For a proportionate sample this should be made up of males and females in the ratio of 900 to 600 (i.e. 900/1500 or 60% male; 600/1500 or 40% female). So the sample should be made up of 72 males and 48 females.

4 Use the Randomizer to randomly select 72 numbers from 900 for the male sub-sample, and 48 numbers from 600 for the female sub-sample.

5 Participants with names corresponding to the numbers selected are your two sub-samples.

Note - For a disproportionate sample, change the proportions at step 3. For example, sampling undergraduate psychology students where there are, say, 650 females and 90 males enrolled it may be thought appropriate to over-sample the males to assist in getting a reasonably representative sub-sample (perhaps a 10% sample of 65 females and a 30% sample of 27 males).

D. Selecting a cluster sample

1 Obtain population lists for each of the units making up the clusters (e.g. the 350 secondary schools in a particular region). Arrange the school names in alphabetical order and number separately.

2 Decide on the sample sizes required. Say the total sample of teachers in these schools required is 1000 to be selected from 50 schools.

3 Use the Randomizer to randomly select 50 schools from the total of 350.

4 Obtain population lists for the teachers in each of the selected schools. Arrange the names of teachers in the first school in alphabetical order and number separately. Repeat for each of the 50 schools.

5 Use the Randomizer to randomly select 20 teachers from the first school. Repeat for each of the 50 schools.*

6 Teachers with names corresponding to the numbers selected in each school are your sample.

* If the schools each have approximately the same numbers of teachers this will be close to a proportionate sample. If not, you might choose to still have the same number of teachers from each school to achieve reasonable representation from the smaller schools (i.e. creating a disproportionate sample). Alternatively, you
might take the same proportion of teachers from each school (find the total number of teachers in the selected schools, say 2300; the proportion of teachers in each school is \(1000/2300 = 0.43\) – a small school with 30 teachers would have \(30 \times 0.43 = 12.9\) say 13 teachers selected; a large school with 70 teachers would have \(70 \times 0.43 = 30.1\) say 30 teachers).
Annotated references to further reading for chapter 11 (p.283)


Bradburn, N. (2004). Asking questions: The definitive guide to questionnaire design - for market research, political polls, and social and health questionnaires (2nd ed.). San Francisco, CA: Jossey Bass. Comprehensive. Can be used to design questionnaires for any subject area, whether administered by telephone, online, mail, in groups, or face-to-face. Describes the design process from start to finish and includes extensive examples.


Dorofeev, S., & Grant, P. (2006). Statistics for real-life sample surveys: Non-simple-random samples and weighted data. Cambridge: Cambridge University Press. Samples used in social and commercial surveys, especially of the general population, are usually less random (often by design) than many people using them realise. Unless it is understood, this ‘non-randomness’ can compromise the conclusions drawn from the data. This book introduces the challenges posed by less-than-perfect samples, giving background knowledge and practical guidance for those who have to deal with them.

Emmel, N. (2013). Sampling and choosing cases in qualitative research: A realist approach. London: Sage. Review of traditional approaches to sampling in qualitative research followed by a realist argument that the task of such sampling is to help build explanations of how mechanisms work.
