## OTHER METHODS OF DATA COLLECTION

While face-to-face interviewing is still the most common form of data collection, other methods can sometimes be used with advantage as alternatives, and for some purposes may be much more appropriate. The main other forms of data collection are:

Self completion questionnaires - diaries
             - questionnaire supplements
             - interviewer delivered
             - postal surveys

Telephone interviewing - pencil and paper
           - CATI system

Observation of behaviour (including film or video)

Counting/measuring

Analysis of records/auditing.

There is time to go into detail on only two of these: postal surveys and telephone interviewing.

### POSTAL SURVEYS

Often criticised as obtaining low response rates and of being limited in scope to simple factual data. Neither criticism is completely valid: provided that proper procedures are followed, response can be as good as in face-to-face surveys. While it is true that the questionning approach must be simple and easily understood, attitudes can be studied quite well through self completion questionnaires.

The advantages of postal surveys are:

- They are cheaper (about one third the cost of a face-to-face survey).
- Unclustered samples can be used
- It is possible to reach isolated areas and scattered minorities easily and cheaply
- Respondents have time to reflect and to look up records
- They can be used to filter large samples of the population to find minority groups for interview.
- They are free of interviewer effects.

The disadvantages are:

- The questionnaire must usually be fairly short (depending on interest of the sample)
- Questions must be largely precoded and independent of probing; therefore limitations of sort of attitude questions that can be used.
- Cannot obtain complicated information needing skips and explanation.
- Cannot ask knowledge questions as respondent may set about finding the answer
- Cannot use "funnel" approach
- Cannot control who completes the questionnaire (best when have a named respondent).

Design and layout are very important:

- Should not be more than 8-10 sides (unless the subject matter is very important and the sample highly literate)
- Should be easy to complete (ie undemanding in terms of mental task required, as well as easy to understand instructions on how to complete it).
- Should be interesting and of clear relevance to respondent or society as a whole.
- Don't complicate or compress layout in order to make questionnaire look shorter.
- Should look attractive and comprehensible.
- Use varying type faces; consider different coloured paper.
- Put instructions on how to complete the questionnaire on the front page of the questionnaire, not in the accompanying letter.

Pretesting is essential in order to ensure that questions and instructions are comprehensible and unambiguous: a) a small pretest in which an interviewer delivers questionnaire and discusses it on completion; b) a larger postal pilot to test all procedures.

Response can be maximised by following certain procedures:

- Give careful attention to the introductory letter, stressing confidentiality and explaining ways in which the results will be useful. Have it signed by someone with high status.
- Make the envelope attractive: neat label, named person if possible, use first class mail and a stamp rather than franking.
- Enclose a prepaid reply envelope, preferably with a stamp.
- Mail to individuals on a Thursday, to organisations on Monday or Tuesday.
- Avoid Christmas and holiday period.
- Send at least two reminders, the second enclosing a further copy of the questionnaire. Keep a chart of daily returns and send out reminder when start to drop off.
- Keep accurate record of returns; it's very irritating to receive a reminder when the questionnaire has been returned.
- Incentives are rarely used but can increase response: if used, can be quite small (unless a diary is involved) and should be sent with the initial mail out to create a sense of obligation.

Non-response: because not all mail that fails to reach its objective is returned, it is difficult to identify those ineligible or out of scope. Only gross response rate can therefore be calculated.

Research has shown that non responders are similar to late responders; analysing key questions by date of return of questionnaire can be clues as to who the non-responders are.

Further Reading

Scott, C (1961) Research on Mail Surveys. Journal of Royal Statistical Society, Series A, Vol 124, pp111-116.

Berdie, D R and Anderson J F (1974) Questionnaires: Design and Use. Scarecrow Press, Metuchen, New Jersey.

## TELEPHONE INTERVIEWING

1. ### A growing method of data collection

   Has been used for many years for interviewing businesses/employers etc.

   In the US a considerable amount of survey work among the general public is now carried out by telephone; this is mainly market research but increasingly includes social research.

   Telephone coverage is around 95% in the US (1974 Census). Although there is still some bias in coverage, it is claimed that similar biases are present in face-to-face interview samples because of the increasing difficulty of obtaining interviews in inner city areas.

   In Britain, around 75% of households are estimated to have telephones and British Telecom claim that coverage will equal that in the US within 5 years. At present there is a marked socio economic bias in coverage.

   Nonetheless, market researchers are begining to use telephone, arguing that buying behaviour of those with and without telephones is similar; weighting is used to correct the sample.

2. ### Organisation of Telephone Interviewing

   Interviewers have mainly worked from home in the past; difficulties of:

   - managing to write and turn pages while holding telephone
   - supervision and control.

   Now a move to <u>centralised</u> set-ups with cubicles equipped with headsets; advantages:

   - ease of administration
   - "production line" efficiency
   - frequent supervision with instant feedback
   - immediate monitoring of questionnaire completion efficiency
   - greater control of procedures with consequent reduction in interviewer effects

   An advantage of telephone interviewing is that the survey introduction and respondent selection procedures can be more fully scripted than for face-to-face interviews.

3. ### Computer Assisted Telephone Interviewing (CATI)

   Development work in the US has now proceeded quite far and several systems are operational. A number of British companies are working on it.

   CATI incorporates:

   - *   The presentation of the interviewer's script, one item at a time, on a VDU

* Key board used by interviewer to key-in responses (including open ended responses) direct to the computer.

* Routing through the questionnaire according to answers given is handled by the computer so that correct next question is automatically presented to interviewers.

* Automatic logic checks

* Randomisation of order of presenting of items or response categories if required.

* Facility for instant results.

4. Interviewer requirements

* <u>Voice</u> is all important: - pleasant <u>over telephone</u> (not harsh or shrill)
                               - distinct
                               - fluent
                               - pace of speech not too fast

* Must be able to read fluently and sound <u>natural</u> while doing so

* Facility to ad lib spontaneously but within rules of survey

* Availability at optimum times of day for finding people at home (esp. 6.00 - 9.00pm)

5. Questionnaire and interview requirements

* Introduction must be carefully scripted to establish legitimacy and usefulness of survey quickly.

* Introduction must be delivered clearly, at slow pace and in a pleasant, friendly manner that sounds spontaneous.

* Lack of <u>non-verbal cues</u> must be compensated for.

  Non-verbal cues: - indicate who's turn it is to speak/channel control
                   - indicate attention and responsiveness
                   - give feedback (eg - nodds, smiles)
                   - channel affect and help build rapport (appearance, eye contact, smiles etc)

There should therefore be verbal response to every answer, even if only "uh-huh", a lot of verbal feedback to indicate that response is on right lines.

* Questions should be simple

* Build more redundancy into complex questions so that respondents have a chance to grasp them.

* Compensate for lack of show cards by:

  - keeping number of scale items down
  - using unfolding, two stage technique
  - using scoring systems (eg marks out of 10) rather than verbal scales.

* Use transitional statements to help respondent understand the progression of the questionnaire

* Keep the verbal flow going, eg. by repeating answer while recording it, explaining to respondent what interviewer is doing (long silences while interviewer is writing or turning pages to find next section can be disconcerting).

* Read the question or the response items again if:
    - respondent seems to be having any difficulty in answering
    - question is complex
    - respondent is being asked to hold items in head.

* Start the interview with questions that relate to the stated purpose of the survey, which are easy to answer and appear interesting and important. Ideally start with a closed question followed by an open one.

* Interview length should ideally not exceed 15 minutes though longer interviews have been successfully carried out.


6. Sampling and Response

In US where many telephone numbers are ex-directory, a system known as Random Digit Dialling (RDD) has been developed.

In UK, British Telecom will provide telephone numbers of listed addresses for 15p per name (plus VAT) so we could use electoral registers as a frame and know how many sampled addresses could not be covered.

Market research companies mainly sample from telephone directories.

If a random procedure for selecting a household member for interview has to be followed, this needs to be as simple as possible and scripted for the interviewers.

Response to telephone surveys has usually been at least 5% lower than on face-to-face surveys but has improved as techniques have improved:

* Techniques for reducing non-contacts:
    - making at least three calls
    - allowing the telephone to ring at least four times
    - calling at times when people are likely to be at home

* Techniques for reducing refusals:
    - sending out a preliminary letter
    - paying attention to preparation of introduction
    - being prepared to call again if not convenient
    - another interviewer calling refusers and attempting to convert
    - mentioning location of interviewing firm.


7. Comparison of Results from Telephone and Face-to-Face Interviews

Most studies show negligible differences in results obtained. Where differences have been found, in early studies the results favoured face-toface interviews but a recent study by Cannell et al on health topics indicated that fuller reporting was achieved by telephone. He suggests that this was because of greater control of use of feedback possible on telephone surveys.


Further Reading

Dillman, D. Mail and Telephone Surveys: The Total Design Method; New York, Wiley, 1978.

Groves, R & Kahn, R.L., Surveys by Telephone; London, Academic Press, 1979.

McDonald, C., Telephone Surveys: A Review of Research Findings; Market Research Development Fund, 1981