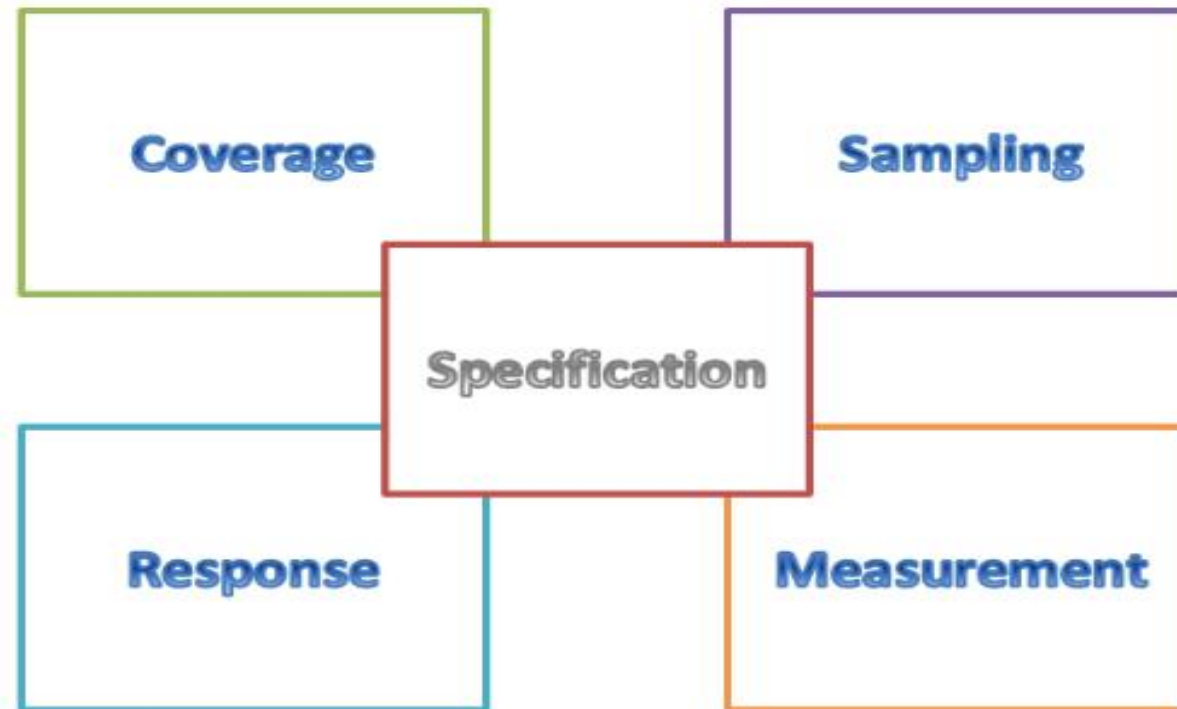


Chapter 2

Questionnaire Designing and Survey Modes



The cornerstones of survey research (Salant and Dillman 1994)



We thus concentrate on measurement in surveys, the target being especially to avoid measurement errors or to evaluate its impact in estimates. Best results are achieved only if the questionnaire and its validity is optimal and well connected to the survey mode used. This is the big part of **Data Collection** but the three other cornerstones are considered in more details on following parts although:

- Non-response may be due to a bad measurement (no motivation to participate, inappropriate survey mode, bad/invalid questions in a questionnaire).

- Coverage cannot be equally achieved with all types of survey data collection modes. E.g. phone numbers are not available for all people, web is not used by all without an available device and without the ability to use it correctly.

- Using interviewers or not, that is, using self-administered answering: there can be an influence both for non-response and measurement, and even for coverage |

Survey modes

There are several modes or platforms to be used in survey data collection, that is, in the survey fieldwork. We here present a summary that includes their acronyms.

The **face-to-face** (f2f) interviewing was first used in surveys since it does not require that an interviewee can read and write, but thus understands the questions with the help of the interviewer. The questionnaires and the response files were in paper formats. Hence this mode is called '**Paper and Pencil Interview**' (**PAPI**).

The PAPI is still used in countries where computer assisted systems are not enough developed, and it can be a best method for certain specific surveys. If the interviewees cannot read and write well enough, it might be the only valid mode as well. However, the **postal** or **mail survey** with the paper questionnaire is appropriate and relatively cheap in population groups who can read and understand the questions and write/mark their answers. The mail survey can be used in others so that the answers are saved into an electronic file and then submitted to the survey institute.

The face-to-face interviewing is nowadays applied using computer assisted equipment, and hence the term **CAPI** (Computer Assisted Personal Interview) is its most common tool. This term matches also if telephone (phone) or SKYPE is the technical equipment but the term **Computer Assisted Telephone Interview (CATI)** is its ordinary term. This data collection is done in so-called CATI centers where sophisticated IT technologies are applied in selecting interviewees.

Computer assisted technologies are naturally the only workable tools in **web** or **Internet surveys**. These technologies are developed since 1990's when this mode really was implemented in some countries. Best technologies are such that are more and more as user friendly as personal interviews. This means that all required information is easily available in the computer system. On the other hand, the questionnaire is such that motivates to participate and answer. An obstacle for the success of web surveys is the **smart phone** technology that is used more and more as a web tool. Unfortunately, the electronic questionnaire in smart phones cannot be easily adjusted so that the responding is user-friendly. The main reason is its small screen. If the questionnaire is small and the response categories are rare, smart phones work naturally better but this is not the case in most ordinary surveys.

A general term for self-administered interviewing is **Computer Assisted Self-Interview (CASI)**. Web surveys are included in this group but it is also common in CAPI face-to-face surveys concerning sensitive questions. In this case, the interviewer gives her/his computer to the interviewee to reply anonymously similarly as in ordinary web surveys. This strategy with two modes was used in the Finnish Security Survey, for instance, and helped to get more reliable results (Laaksonen and Heiskanen 2014) for sensitive questions.

One or more modes in one survey?

One **single mode** has been traditionally the most common strategy in surveys of persons or households, that is, only mail, phone or web has been used. The business surveys are often using multiple modes (**multi-mode** surveys) so that large businesses are participating with electronic modes since this is easy for them; respectively, small businesses might participate with more manual modes since they cannot invest for high technologies. It is also possible that the interviewer call to these small businesses and get reasonable answers. The multi-mode methodology thus means that a different mode is applied for different target population groups. It is possible in social surveys as well if several frames are required to reach the entire target population.

This book does not go to details of multi-mode surveys. On the other hand, we pay more attention to **mixed mode** strategies. The survey is mixed mode if two or more modes has been attempted to use to approach to one target population or we have one gross sample that has been approached so that the potential respondent can choose whether to reply for instance by web vs PAPI, or *f2f vs phone*, or even with several alternatives.

(i) How to contact/approach to a potential respondent?

(ii) How the information is saved/uploaded into the file?

(iii) What kind of formats do the questionnaires use? Note that the format can be converted into a new format after initial data collection.

(iv) How to submit the data?

Designing questions for the questionnaire

This is of course a very big area within the whole survey process. The questions are implementations of the measurement desired to study. That is, they should be valid. At the same time, the measurement instruments should be reliable. How to succeed well in measurement? We give some practical strategies:

- (i) Try to find appropriate questions from the earlier studies. This is often possible unless your field is very new, never tested or validated. Still, it is good to make a search for good questions, question models or question banks. Go on to look at the surveys of your interest

(ii) If you have a new type of target, it is still good to exploit those general models, but next to try to develop your own strategy, not alone but in the team, and then to test it in your neighborhood first and after that to **pilot** the whole questionnaire with appropriate people. This is called **pre-test**. There are two main strategies when selecting the 'sample' for this pre-test:

It is good to answer the following seven questions at least:

1. How well the question is concerned your research target and well formulated in this direction (validity)?
2. Is the question definitely beneficial; the question should give some value added for your analysis?
3. Are you sure that the respondents understand the question as your target for the question is?
4. Has the respondent reasonably information to answer correctly (e.g. terminology is known well, help tools such as popup's might help)?
5. Are the respondents willing to answer the question?
6. Should the question be presented to all or for a certain group of the sample?
7. Can you find other information in order to analyse the answers given and how reliable they are?

1. The first real question is important. It is good that it already is concerned one big issue of the survey but should not be too difficult to answer. Naturally, this question should be for all respondents, not for some.

2. Where to put so called background questions (gender, age, education, occupation, marital status)? Some prefer to put all these in the end but some others to divide in a quite early stage as far as non-confidential questions are concerned but confidential questions (salary, income) are good to put in a very end. Note that if you know the above variables from registers for example, do not ask them again except for testing purposes.

3. Each survey should have certain specific key areas/subjects and main concentration should be paid to these. Hence it is good to carefully design the questionnaire so that such key questions are in an optimal place.

Two types of questions

Fortunately, possible questions are only of two types. They are concerned either

1. *Facts (age, gender, living area, industry class, occupation, salary, income, partnership, education)*

Or |

2. *Subjective features (attitudes, opinions, assessments, purposes, arguments).*

Show Cards
In f2f surveys
ESS here

No time at all

Less than ½ hour

½ hour to 1 hour

More than 1 hour, up to 1 ½ hours

More than 1 ½ hours, up to 2 hours

More than 2 hours, up to 2 ½ hours

More than 2 ½ hours, up to 3 hours

More than 3 hours

**You
can't be
too
careful**

**Most
people
can be
trusted**

0 1 2 3 4 5 6 7 8 9 10

Screening example of the Finnish Security Survey

(Laaksonen and Heiskanen 2014)

A12 Over the last year, has anyone in your household had a car, van or truck for private use?

[YES; NO]

A13 IF A12=YES, How many cars has your household had use of for the most of the time?

NUMBER OF CARS: [1-5]

C1 IF A12=YES: During the last 12 months have you or anyone else in your household had a car or a van stolen or driven away without permission? [YES; NO] (COMPANY CARS INDCLUDED)

C2 IF C1=YES: How many times did this happen? [1-9]

C3 IF A12=YES: (Apart from this) During the last 12 months have you or anyone else in your household had anything stolen of (your/their) vehicle or out of it (parts of the vehicle, personal possession or other things?) [YES; NO]

C4 IF C3=YES: How many times did this happen? [1-9]

No Answer

Standard format. The "don't know" option is presented to the respondent, but is recorded if the respondent volunteers it.

Quasi filter. The "don't know" option is included among the possible responses.

Full filter. First the respondent is asked if they have an opinion. Then, if yes, they ask the question.

- Don't know
- Isn't willing to answer (refusal)
- The question does not concern him/her/
- Unable to answer correctly
- No time to answer correctly
- Lost answer
- Other reason.

Satisfying

Straighlining

Now I will briefly describe some people. Please listen to each description and tell me how much each person is or is not like you. Use this card for your answer.

	Very much like me	Like me	Some -what like me	A little like me	Not like me	Not like me at all	(Don't know)
Thinking up new ideas ¹ and being creative is important to him/her. He likes to do things in his own original way.				X			
It is important to him/her to be rich. He wants to have a lot of money and expensive things.				X			
He/she thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life.				X			
It's important to him to show his/her abilities. He/she wants people to admire what he does.				X			
It is important to him to live in secure surroundings. He/she avoids anything that might endanger his safety.				X			
He/she likes surprises and is always looking for new things to do. He/she thinks it is important to do lots of different things in life.				X			

Example 2.1. Textual versus coded categories

