

Design, evaluation and analysis of questionnaires for survey research

by Willem E. Saris

It is tempting to think that formulating survey questions is very simple; after all, we all can make questions. Others may think that it is an art which one can not learn. Our point of view is that there is now enough knowledge about the consequences of the choices which are made when questions are formulated that survey design can be a scientific task. Therefore an overview of these choices and their consequences will be given in this course. Because errors will always remain in the questionnaires, we will also discuss how one can cope with these errors in the analysis of survey data.

1 Prerequisites

The prior knowledge required to participate in this course is limited, but it helps to know the basic concepts of descriptive statistics such as mean, variance, standard deviation, covariance, correlation and regression.

2 Competences to be achieved

The purpose of the course is that the students

- become aware of the major problems connected with survey research;
- are able to develop proper questionnaires;
- can evaluate the quality of already existing questionnaires;
- understand the effect of measurement error on survey results;
- understand the problems of comparative cross cultural research.

3 Assessment

During the course the participants are expected to design their own questionnaire for a study. This can be done by small groups of maximally 3 persons. In the end a report should be written about the design of the questionnaire where the

operationalization is discussed and the quality of the instrument evaluated with the program SQP.

Besides this task the participants will be given a research report from the literature to evaluate. The final mark for the course is a weighted average of the group report and the individual report.

4 Contents

In the first part of the course we will suggest an approach that can help to formulate proper questions for the concepts one would like to measure.

In the second part an inventory will be given of the characteristics of survey items which play a role in determining the quality of a survey question. In this part the different choices a survey researcher makes while designing a survey item will be made explicit. It will be seen that even choices that are habitual need to be reflected upon.

The third part starts with a discussion of criteria for data quality and then gives a summary of existing knowledge about the effect of different choices on the quality of the questions insofar as this knowledge is used in the SQP program.

Subsequently the computer program SQP is introduced. This program predicts the data quality on the basis of the characteristics of the components of survey items which have been found to influence the data quality of survey items.

In the fourth part of the course we will demonstrate how this knowledge can enhance the analysis of survey data by developing complex measurement instruments, improving comparative research and correcting for measurement error in multivariate analyses.

5 Methodology

The course will be a mixture of seminars and lectures combined with groups work and individual tasks, especially exercises.

6 Sources of information

The textbook used is:

W.E.Saris and I.N.Gallhofer (2007). *Design, evaluation and analysis of questionnaires for survey research*. New York: Wiley.

The SQP program and codebook can be found at:

<http://www.sqp.nl>