Chapter IX
Sampling in Online Surveys

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ABSTRACT

Online surveys have grown very popular in the past few years. They offer some major advantages compared to paper-and-pencil surveys. Nevertheless, some difficulties arise when online survey methods are applied: this especially concerns sampling and the question of representativeness. This article introduces the particularities of sampling in online surveys, and discusses the limitation of research settings (online surveys) for achieving population representativeness in the research sample.

INTRODUCTION

The World Wide Web, and its uncountable practical applications in every part of private and business life, has greatly affected and influenced social research. Using the Internet for both primary and secondary research has become a standard procedure in the social and psychological sciences worldwide. Online research itself is a widespread term used in different contexts including very different types of primary research such as Web surveys, Web interviews, Web experiments, Web observation, text and content analysis in the Internet, and the analysis of hard data such as logfiles (cf. Knapp 2003, p. 1). All these applications can be subsumed under “online research,” as they collect data via the Web, but not all of them will be discussed in this chapter. In the following, we will concentrate on the Internet as a tool for the quantitative questioning of people and, therefore, the Internet as a new instrument for applying classical methods of social research.

Quantitative online survey tools offer a lot of advantages compared to paper-and-pencil questionnaires. To highlight the most obvious ones:

- Easy and cheap distribution of questionnaires among a high number of people via e-mail.
- The respondent is “guided” through the questionnaire. The survey becomes more than just a form to be filled in.
- The researcher can easily use multimedia such as pictures, sounds, flash animations, and even movies in the questionnaire as a stimulus.
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• It is possible to give the questionnaire a logical structure using filter questions, ramifications, and so forth. The respondent only gets the questions suitable for him/her.
• It is possible to build in validation procedures (e.g., does the answer on question “driving license” match with the answer on question “age”) and real-time checks (e.g., postal codes are checked if they are correct).

Different Types of Online Surveys

When talking about quantitative online surveys, we have to make a differentiation according to two main points:

• How is the survey carried out?
• How are the respondents invited or recruited?

The answer to these two questions helps to distinguish different forms of quantitative online surveys (cf. Mac Elroy 1999). In the first dimension “how is the survey carried out” we can intergrade the following types of surveys:

1. E-mail questionnaires
2. Web site surveys
3. (Interactive) Online questionnaires
4. Downloadable surveys
5. Bulletin boards

E-Mail Questionnaires

Without a doubt, the earliest method of conducting surveys over the Internet or over a company’s internal system (intranet) is the text-based e-mail questionnaire. This kind of online survey simply uses the advantages of e-mail for sending out questionnaires. The receiver gets the questionnaire; fills in the questions, either directly into the file sent as an attachment or on a printout of the questionnaire; and returns the filled-in form via e-mail, or by using classical channels such as fax or postal services. This type of survey can be generally thought of as an online form of paper-and-pencil surveys.

Web Site Surveys

Another possibility to do online surveys is to implement a survey directly on a Web site, programming it as an HTML page on the Web server. Every visitor to the Web site either directly sees the questionnaire, or an invitation to it opening up (popping up) in a separate Internet window (more or less suddenly when visiting a certain page) asking the visitor to the home page to participate in the survey. This kind of pop-up invitation attracts the attention of the home page visitor and, therefore, guarantees that a fixed Web site survey will not be overlooked. In most cases, this type of survey consists of just a few, maybe only one question, referring to actual topics. This type of research is often used as a kind of self-evaluation of Web sites, too (e.g., Did you find the information offered on this Web site useful?—Yes/No).

(Interactive) Online Questionnaires

This most advanced kind of online questionnaire is, nowadays, the most common type of online survey. In one or the other aspect, it might look quite similar to the fixed Web site and the pop-up survey (and there are a lot of similarities for sure as they represent former modes of online surveys), but they offer a lot more technical possibilities, and can be used in more research contexts (the two forms of online surveys explained before can be understood as the most simple forms of Web site surveys) (cf. Dannenberg; Barthel, 2002, p. 148f).

In general, these online questionnaires can be understood as programmed questionnaires on the Internet. These advanced surveys can be programmed directly in HTML or similar languages, but in most cases, the researchers use professional online questionnaire design software. These ap-
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