

## INSURING THE QUALITY OF E-SURVEYS

The most important finding from survey studies (Dillman, 2000) is that the wording of the question has profound effects on the results. It is prudent to develop a strategy for checking your survey before it is released to respondents. Three techniques are recommended to reduce the possibility that your questions, rather than the respondents' opinions, will influence the results.

### Expert Review

Construction of a quality survey uses skills studied in anthropology, linguistics, psychology, psychometrics, and computer science, to name only the most prominent disciplines. Obviously, many e-researchers will lack most, if not all, of these

skills. For this reason it is highly recommended that the survey be reviewed by experts in at least one of these fields and, as importantly, someone who has had practical experience doing survey research.

Tools of the network facilitate this review. It is a relatively simple process to attach a draft survey to an email and to encourage the reviewer to use the reviewer tool sets found in modern word processing packages (in Microsoft Word it is called "track changes") to suggest corrections and add comments about the survey, then return it to the researcher. It is an easy task for the researcher to then accept or reject any changes and respond to or delete any comments left by the reviewer. If the survey is created online, then only the URL need be sent to the reviewer, however, the reviewer should be encouraged to download the document(s)

to their machine so as to utilize the reviewer tool sets.

## **Pilot Testing**

Pilot testing provides extremely valuable information. Make sure that you measure— or request that the participants measure—the length of time required to complete the survey. Surveys generally should not take more than ten to fifteen minutes. From this pilot information, you can gain a number to be used to inform participants of the approximate time commitment you are requesting of them.

## **Statistical Analysis of the Items**

Analyzing the survey items provides statistical validation of the items selected and is especially valuable when items are to be combined to create

larger-scale scores. Standard statistical packages provide tests of item reliability. More sophisticated analysis, such as differential item functioning (Johanson & Johanson, 1997), can be used when there are questions about the reliability of certain items with particular sets of respondents. These techniques are typically used after the full set of data has been collected but can also be used on data from pilot test sample is large enough.

## **TYPES OF e-SURVEYS**

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### **TYPES OF e-SURVEYS**

Ever-increasing bandwidth capacity coupled with improvements in the tools and techniques of Net-based software development has spawned a somewhat bewildering (and growing) set of options for

conducting e-surveys. We briefly review the options in this section, knowing full well that variations and combinations of these techniques will likely be more available and affordable in the future.

## **Email Surveys**

The original and still the least expensive method of e-surveying is the ubiquitous email delivery, with a reply going to the researcher's private email box. Email surveys have the advantage of looking similar to paper-based surveys, thus retaining the familiar respondent mind set acquired with pen-and-paper surveys. In fact, it is a relatively simple job to import a paper-based survey into email. The length of the survey and the instruction procedures for respondents are self-evident and respondents will likely have had previous experience complet-

ing this type of survey.

Email surveys are more flexible than paper-based equivalents. MacElroy (2000) notes that respondents can easily change their answers in email surveys if they wish to do so. Respondents can even go so far as to change the question if they feel it needs improvement! Such changes of course present challenges in tabulating results, but may provide valuable insights into the respondents' thoughts and provide suggestions for subsequent survey revision.

Email surveys are the preferred choice for many small-scale researchers working on a limited budget. This type of survey requires no special technical expertise, other than the capacity to format the questions for an email interface. However, because of the proliferation of email packages in

use, even this is surprisingly difficult. Careful piloting on a variety of email systems is therefore highly recommended. It is possible to include the survey as an attachment that opens in the respondent's word processor. This technique allows for more sophisticated and controlled formatting but is not recommended for two reasons.

First, it increases the necessary effort on behalf of the respondent, because replying changes from a single keystroke to readdressing an email and attaching the completed survey. Second, respondents are rightfully concerned with macro viruses that may be hidden within an executable attachment, and therefore they are less likely to open any attachment received from a source that is not therefore they are less likely to open any attachment received from a source that is not trusted and known.

Email surveys allow the user to respond in a variety of ways. Most will choose to respond directly on screen and immediately reply to the researcher. However, some respondents may wish to print the survey and respond via fax or postal mail services. Thus, required information for both fax and postal return should be provided in a covering letter.

Email is ubiquitous and allows for very easy forwarding and copying of the survey. If the research design allows, it may be possible to increase the response pool by encouraging respondents to forward the email to acquaintances or even relevant email