Reducing e-Survey Error

Every survey is subject to error. Even if one were able to survey each member of the target population, there may still be some error due to respondent misinterpretation of the questions or misrepresentation of themselves.However, since surveying all mem- bers is rarely possible, additional errors due to sample selection may also occur. Despite great care in selecting a sample, there will always be random variations in any population that may, quite by chance, bias even the most meticulously designed and administered survey. However, it is the responsibility of researchers to eliminate as much of the systemic error in their design and administration of the e-survey as possi- ble, Next we describe the major sources of error, common to all forms of survey, with brief notations on the particular manifestation of the error in Net-based forms of sur- vey research. Major sources of error reduce the value, veracity, and impact of any survey—including those conducted online.

Frame or Coverage Error

Coverage error occurs when only a particular subset of the target population is included in the survey. The sampling frame is the list or source of names from which the sample is drawn. If this list does not contain all of the members of the population, and especially if some groups or individuals are systematically eliminated from the frame, then frame error will result in survey result errors. This is an obvious danger for ¢-researchers, in that the entire general population does not currently have access to the Net. Thus for the foreseeable future there will always be elements of the whole population that are eliminated from a Net-based survey due to coverage error. How- ever, there are a growing number of target populations to whom 100 percent or close to 100 percent of the members are online. This group would include employees of many companies and members of certain professions or social organizations. Coverage error has led some researchers to conclude that e-surveys are not useful (Dillman, 2000) for general population studies at this time. Although we agree that one cannot make inferences about the whole population based on the subset who use the Net, we contend that there is still a great deal of valuable information that can be obtained from sampling from the growing number of people who access the Net on a regular basis.

Measurement Error

Measurement error occurs when there is a variation between the information the researcher is looking for and that obtained from the research process. Measurement error can begin in the design process if the researcher is not clear what type of infor- mation is being sought. It is most commonly found in measurement bias within the survey itself, in the form of confusing, uninterpretable, or biased questions producing results that are inaccurate, uninterpretable, or both. Measurement error may also occur during completion of the survey if respondents make data entry errors when complet- ing the survey. Finally, measurement error may result from error in data analysis. Careful wording of instructions and provision of examples are useful ways to reduce measurement error.