# HosseinFiroozi With Student row number: 50 From Page: 148 To Page: 150

### **Cost Savings**

The Net-based survey's most obvious advantage is its cost-effectiveness compared to surveys administered through the postal or telephone system. Most paper-based surveys are created first electronically on word processors or with dedicated survey creation packages and later printed to paper before distribution through mail, newspaper or magazines. Delivery via the Net shortcuts this expensive process and allows surveys of almost any size to be both delivered to and returned by participants at negligible costs. In addition to delivery cost savings, e-surveys can be designed so that participant input is improted directly into analysis packages, saving the cost and potential error generation associated with data entry of mail or telephone surveys. Sheehan and Hoy (1999) report on a large-scale email survey involving 3,700responses. It resulted in a 24 percent return rate at a cost of \$470 compared to an estimated cost of \$6,500 to administer the survey by paper and post. Preseus Development Corporation (2000),a creator of Web-based survey tools, Provides comparative data on three types of data collection. They estimate that the cost to deliver a simple five-minute survey to 100 people at various remote location is:

Telephone: \$50 for telephone costs + \$250 for interviewers + \$250 to enter data = \$550

Mail: \$100 for printing/postage + \$400 to open envelopes/enter data = \$500

Internet: \$50 to create/deliver from + \$5 to convert data = \$55

These example suggest that the cost of e-surveys is approximately one-tenth the cost of equivalent mail surveys. However, experienced researchers caution that it is easy to underestimate the cost of time s[ent on programming when developing sophisticated, interactive e-surveys.

### Time Savings

E-survey results typically are received by the researcher in much quicker time frames than those that rely on post delivery. GuidStar Communications (1999b),an e-survey company, claims that "on average 50% of e-Survey response come in within 24-48 hours, and two-thirds within 72 hours." Faster return rates will be even more dramatic when international clientele are included in the e-survey. The rapid feedback, tabulation, and analysis are also very useful for researchers who are provided feedback immediately on any problem encountered by participants or the analysis software.

#### Direct Participant Entry of Data

Since the participant enters the data directly, the researcher saves the effort and eliminates the potential for error involved in Keying in data from completed surveys.

#### **Enhanced Presentation**

Web-based survey and HTML formatted email can use color, graphics, animation, and sound at very low costs compared to creation and delivery of paper-based media. Surveys can even link to external Net resources, thus providing stimulation, explanation, or examples for participants.

### Immediate Respondent Feedback

E-surveys can be analyzed automatically and the results displayed immediately for the respondents. These results can include normative data, comparing the respondent with others or simply presenting the participant with summary data of their contributions. Such information, provided very quickly, can be an important motivation to Net-based participants.

## **Increased Survey Opportunities**

E-surveys can be presented to user using a wide variety of placement techniques. No longer are invitations to participant in survey encountered only on trips to the mailbox, or as often as not during suppertimes on the telephone! Popup surveys can be programmed to appear at certain times-for example, the esurvey can be programmed to appear immediately after a person utilizes a particular Web-based resource.

#### Increased Convenience

E-surveys allow increased time-shifted flexibility to respondents and researchers. Problems of schedule coordination and time zones, as well as prior and spontaneous commimtments fall away when surveys can be completed "anytime/anywhere." Both theorists (Feenberg, 1989) and researchers (Anderson & Kanuka, 1997) have argued that forms of communication that occur asynchronously allow respondents to reflect on and time shift their responses, thereby increacing the quality of those responses. The time shifting provided to respondents may be the biggest reason for respondent appreciation of e-surveys. A 1999 survey of respondents to email surveys determined that 92 percent of the respondents preferred completing email surveys compared to paper and pencil surveys or telephone interviews (GuideStar Communications, 1999a).

## Design Flexibility

Net-based surveys can be customized "on the fly," thus allowing the survey designer to reduce item response bias. For example it is possible to program the computer to word half of the surveys with a negative stem and half with a positive, or to change the order of progressive (Likert-type) scales from highest to lowest.

## **Higher Rates of Return**

Although there is great variation in response rates to both paper and Netbased surveys, it is becoming evident that e-surveys can produce return rates as high as, or higher than, paper-based survey formats (Sheehan & Hoy, 1999; Yun & Trumbo, 2000). Kerns (2000) reports return rates of 40-60 percent on e-surveys that he has administered. Although we cannot say for certain why the return rates are higher, we can speculate, first, that it is likely attributed to the ease with which surveys and related introductory and reminder notices can be delivered into the private and convenient environment of the recipients' email boxes. Second, respondents know that survey completion involves relatively little effort (such as remembering to drop the survey at the post box). Third, the interested respondent can be motivated by instant or more accessible results of the survey-or other incentives, such as e-gift certificates and e-books. This potential for higher return rates is somewhat mitigated by the increasing quantity of email arriving daily in our inboxes. E-researchers are already finding that they need to insure their message stands out through effective labeling, use of an attention-grabbing subject line, and perhaps even using the paper mail to provide an initial invitation to potential participants.

#### Faster Creation and Delivery

E-surveys are bred in the "instant" world of network connectivity. Forms can be created instantly,linked to distribution system automatically, and delivered at instantaneous speed. This result in Kerns (2000) claiming that "setup, data collection and reporting can be more than 60% faster than with a paper-based survey."

### DISADVANTAGES OF e-SURVEYS

As with any technological innovation, there are disadvantages associated with the use of e-surveys. The challenge for the successful e-researcher is to design a research study that allows the research to benefit from the advantage of e-survey techniques, while minimizing the disadvantages. The disadvantages include response bias, lack of incentive, authenticity, security and confidentiality, respondent anger, and procrastination. The following sections outline these disadvantages.

## Response Bias

Despite worldwide growth in access and use of the Net, there are still large populations who do not have access to this medium. In addition, the Net-accessible population is highly skewed towards English-speaking,well-educated,and affluent populations. This bias may not be problematic if the target population is known to be network users or their use of the network is a definition of membership in the target audience. However, when a full population is the target of research, a sample of those accessible on the Net will likely bias results.