

Communication with Recipients of a Web-Based Evaluation Survey¹

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Abstract

A current method of conducting evaluation surveys is by using the World Wide Web as a delivery vehicle and computer programming to collect and process submitted responses. Benefits of this method include substantial savings in postal mailing costs, rapid access to survey assistance, and efficient data processing. However, evaluators must be mindful and prepared when embarking on the use of Web-based surveys. Our experiences are recounted in this article.

“They [surveys] are relatively low in cost, geographically flexible, and can reach a widely dispersed sample simultaneously without the attendant problems of interviewer access or the possible distortions of time lag. . . .data can be procured more quickly, more abundantly, and more cheaply” (Kanuk & Berenson, 1975, p. 440).

By the end of the twentieth century we saw an explosion of the use of the electronic polling method via surveys developed for the World Wide Web. Personal computer users with Internet access could find themselves bombarded with visual marketing tools designed to be eye-catching enticements to partake in an on-line survey. These surveys are quick, “anonymous,” and may become a part of that evening’s news. One might think the quoted statements above were in reference to these modern Web-based surveys. However, these remarks are from 25 years ago and concern postal mail surveys.

The use of surveys is institutionalized as a standard means of gaining research and evaluation data. Virtually every academic, business, and political organization regularly employs survey techniques. For academic programs, where persons to be surveyed have known E-mail addresses and other contact information, the electronic survey offers what appears to be a major new avenue to quickly reach out and collect data.

In our case, The Evaluation Center (EC) at Western Michigan University is working under a grant from the National Science Foundation (NSF) to conduct an evaluation project. The overall mission of this evaluation project is to assess the impact and effectiveness of NSF’s Advanced Technological Education (ATE) Program and to provide technical assistance for ongoing evaluative efforts (Gullickson & Lawrenz, 1998). The first phase of this evaluation was

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focused on building a Web-based survey system that would help NSF keep abreast of ATE program activities and related outcomes. We knew the targeted respondents for our survey. The information we were to derive from them was intended to be a fair illustration of the ATE project sites represented by this specific group of people.

This article is presented as a brief look at what happened on the communications front of this evaluative effort. We thought it would be useful for our future survey efforts to track the steps we took and the amount and nature of messages and queries we received from persons sampled. Our findings indicate that our level of communication with survey respondents most likely exceeded the norm for survey follow-up communications.

We focused on two issues:

- the nature of interactions when persons are presented with a Web-based survey and correlating E-mail communications
- the relative benefits of Web-based surveys in comparison to postal mail surveys

Survey Design

Computer science design decisions for our Web-based evaluation survey addressed essential details such as computer requirements for respondents, initialization of evaluation pages, presentation of the evaluation instrument, displays of progress and summary statistics, printable reports, and formal specification language that defines an evaluation (Kapenga,1999). These system and survey parameters closely align with characteristics proposed by M. Couper for a “well-designed computer-assisted data collection system” (as cited in Tourangeau, Rips, & Rasinski, 2000, p. 309).

The Evaluation Center’s ATE project staff formulated the logic model that would be the basis for the main ATE survey design. Drivers and indicators for this survey were constructed by combining information and experience from extended study of available program documents, interviews of NSF staff and ATE project staff members, and input from ATE project evaluators. This information is available at <http://ate.wmich.edu>. The topics of evaluation focus, emphases, confidentiality, manageable work requirements for projects, and using the Internet as a primary report mechanism were given careful consideration.

Preparation of Recipient Site Representatives

All Principal Investigators (PIs) or, in some selected cases, the Project Director, of the chosen recipient projects were sent an E-mail message containing technical information that provided them an opportunity to check their computer browsers for compatibility with the survey’s requirements.² At the request of the PIs, the full survey, in a “read only” mode, was made available to all who visited the “browser check” site. This preview period gave us the opportunity to track changes in E-mail addresses, telephone numbers and area codes, and PI assignments. In some cases there was a delay in reaching the proper contact person as we followed leads for the correct information.

² For purposes of clarity and conciseness, we will refer to all Principal Investigators and Project Directors collectively as Principal Investigators (PI).

Activated Survey and Follow-Up

The Web-based survey system was designed so that we could track respondent activities such as logging in, choosing optional sections, and submitting survey sections. While the survey was an active evaluation instrument, three E-mail reminder notices were sent to those who had not begun or completed the survey. If these notices elicited no response or bounced, we followed up by telephone.

Nature of Interaction with Survey Recipients

The nature of and reasons for communications with ATE survey respondents were diverse. Notice to check one's Internet browser status and compatibility for the survey was sent electronically to 113 project sites by way of E-mail to each project PI. Some E-mail notices bounced back to us. This informed us of many cases where we were not successful in reaching our intended recipients. Therefore, the majority of early communications concerned finding the correct E-mail address or name of a newly assigned PI. If we didn't get an E-mail bounce, we continued our survey efforts, assuming the messages reached their marks. A few weeks later we released the activated survey to a revised list of PIs. As the weeks went by, our ability to see a daily tally of which sites were actively involved with the survey helped us determine which PI to target for follow-up reminders. Electronic reminders elicited some replies that revealed businesslike concerns such as a PI being out of the office for an extended time period, away for the summer term, very busy for the last several weeks, or having plans to forward the survey to his/her replacement PI. Occasionally, we would receive a reply of a more personal nature. We then began to focus on those PIs who had not yet logged on to the survey. Were they just too busy? Or worse—did they ever receive the survey in the first place? Sorting through a maze of published and unpublished area code changes, we used the telephone to continue our pursuit of accurate contact information. Our inquiries revealed a variety of reasons for nonresponse such as retiring PIs, alternate summer computer sites, and a fear of computer viruses.

We ultimately engaged in additional communication with 66 percent of the survey recipient sites. These communications were beyond the initial survey preparation notice, the activated survey itself, and/or routine follow-up reminder notices and are summarized in Table 1.

The PI or other project representative of 30 percent of the total recipient sites initiated contact with our staff for reasons other than correcting E-mail addresses, PI assignments, or replying to a reminder. Their reasons for initiating contact with us are outlined in Table 2.

Technical questions addressed issues such as access to a printable copy of the survey, bypass of required questions when not applicable to one's project, unsuccessful attempts to log on to the survey, and loss of data after "resizing" the software "window." Inquiries concerning survey question or instruction wording focused on items such as difficulty in collecting the type of data necessary to answer the questions, enumerating collaborative project partners, assessment of cost vs. value of in-kind donations, and defining terms such as "courses" and "programs." Comments and criticism incorporated ideas about the relevance and nature of the survey questions. Concerns were also raised about the time of year the survey was distributed and the length of the survey.

| Reason for Additional Communications to or from Project Sites | Sites N | Sites Involved with Additional Communication % | All Sampled Sites % |
|--|----------------|---|----------------------------|
| E-mail address and/or PI changes ONLY | 27 | 36 | 24 |
| Replies to reminders to start or complete the survey ONLY | 13 | 18 | 12 |
| All other reasons only or in addition to the two listed above | 34 | 46 | 30 |
| Project Sites Requiring Additional Communications | 74 | 100 | 66 |
| | | | |
| Project Sites Receiving the Survey | 113 | | |

| Reason for Contact | Questions/Comments N | All Questions/Comments % |
|---|-----------------------------|---------------------------------|
| Technical | 26 | 51 |
| Survey Question or Instruction Wording | 13 | 25 |
| Criticism/Comments/ Request for Personal Contact | 12 | 24 |
| Total | 51 | 100 |

Most of these contacts engendered a cycle of back and forth communications among ATE evaluation project staff and the ATE project sites being surveyed. At times there were messages sent to and from our office that could be considered polite conversation or replies to the other communicator. A grand total of 121 messages were necessary to resolve the issues raised by 46 contacts (Table 3).

| Table 3. Summary of PI-Initiated Communications | |
|---|----------|
| Communication Tallies | N |
| Respondent-initiated contacts via E-mail | 38 |
| Respondent-initiated contacts via telephone | 8 |
| Total contacts | 46 |
| Sites represented by contacts (N_s) | 34 |
| Distinct issues raised by all contacts* | 51 |
| Communications necessary to resolve issues (N_c) | 121 |
| | |
| Average communications per site N_c/N_s | 3.6 |
| Notes: -Communications listed here are <u>not</u> related to changing PI assignments, E-mail addresses, or survey completion reminders. -*Multiple questions or comments may have been posed during each contact | |

Findings and Conclusions: Lessons Learned and the Relative Benefits of Web-Based Surveys in Comparison with Postal Mail Surveys

An early lesson we learned is that the transient nature of E-mail addresses can cause delay in the execution of a Web-based survey. When we began our survey, we erroneously believed that the E-mail addresses would be relatively stable for our intended recipients—Principal Investigators in academic institutions. However, the E-mail bounces alerted us to the problem and enabled us to follow up in a variety of ways to obtain correct addresses. Once the correct addresses were obtained, an E-mail message efficiently directed the recipients to access the survey form on the Web. Thus, we did not need to send a new survey form, as would be necessary with a postal mail survey.

The nature of follow-up of survey nonrespondents is markedly different with a Web-based connection compared with traditional postal mail surveys. The Web system allowed respondents to electronically “save” partially completed surveys and return to complete the surveys at a later date. In our E-mail messages we could acknowledge the work they had previously saved within the electronic system and encourage the completion of their surveys.

Additionally, this Web-based system linked evaluators with evaluatees in a manner that was quickly responsive to queries or concerns. Questions posed by survey recipients triggered additional correspondence and actions that we think improved the quality of data retrieved by the surveys. Moreover, we believe that a significant proportion of those persons who had questions or concerns may not have responded to a traditional mailed survey unless a toll-free telephone number had been provided to offer a similar level of immediate access to assistance. Without access equivalent to that which E-mail offers, it is likely that the respondents would have submitted a survey with inappropriate data or blank items. Nevertheless, it should be noted that computer-mediated communication is not known for being the most efficient form of conflict

resolution (Chesebro & Bonsall, 1989). As evidence to this our experience was that situations persisted that were only resolved by additional telephone contact.

Ideally, you expect that a survey should be so well crafted that all respondents will know what information to provide without interacting with the evaluators. In practice that is rarely the case, even when the survey has been extensively reviewed and piloted, as ours was. With postal-mailed surveys, item concerns come to the forefront at the data analysis stage. Here, E-mail correspondence helped to identify and resolve issues well before they could become problems of data interpretation. Additionally, this means of communication appears to reduce tensions and increase the willingness to respond among persons who aren't fond of surveys in general or who were frustrated by the nature of this survey in particular.

Clayton and Werking (1998) asserted that “. . . World Wide Web collection virtually eliminate[s] the traditional labor-intensive activities [of mail surveys]” (p. 556). We found that, although the nature of the work changed from that associated with traditional mailed surveys, our survey required significantly more personnel time than expected after the survey was sent out. This personnel time included reading E-mail messages, identifying and/or preparing answers/solutions, and interacting with respondents. We estimate this time to be approximately 10 hours per week during the active survey stage.

We did experience concrete benefits from the Web-based evaluation survey. To make the best use of these benefits, we recommend that any evaluator who may use this type of system consider the following:

- Allow ample time to conduct E-mail address trials (hidden advantage: responsiveness is revealed).
- Plan for multiple use of the same survey to maximize costs and labor necessary for initial development.
- Plan/program for staffing:
 - Allocate time for training on the computer system and the evaluation instrument.
 - Allocate funding to support follow-up communications with the survey sample.

As these findings indicate, conducting surveys via the Web introduces accompanying challenges in follow-up procedures that may involve a good deal of communication. While the adaptations necessary for a Web-based survey system involve real costs to the evaluator, on balance we found that this process appears to be positive—yielding more and higher quality data as well as better relationships with respondents.

Twenty-five years from now it will be interesting to see the latest survey system and whether that, too, will be described as follows: “They are relatively low in cost, geographically flexible, and can reach widely dispersed sample simultaneously without the attendant problems of interviewer access or the possible distortions of time lag. . . . data can be procured more quickly, more abundantly, and more cheaply” (Kanuk & Berenson).

Reference List

Chesebro, J., & Bonsall, D. (1989). *Computer-mediated communication*. Tuscaloosa, AL: The University of Alabama Press.

Clayton, R., & Werking, G. (1998). Business surveys of the future: The World Wide Web as a data collection methodology. In M. Couper, et al. (Eds.), *Computer assisted survey information collection* (pp. 543 - 562). New York: J. Wiley & Sons, Inc.

Gullickson, A., & Lawrenz, F. (1998, October). *Assessing the impact and effectiveness of the Advanced Technological Education (ATE) Program*. Kalamazoo, MI: Western Michigan University Evaluation Center. A grant proposal to the National Science Foundation.

Kanuk, L., & Berenson, C. (1975, November). Mail surveys and response rates: A literature review. *Journal of Marketing Research*, *XII*, pp. 440-453.

Kapenga, J. (1999, October). *ATE Web-based evaluation initial report*. Kalamazoo, MI: Western Michigan University Evaluation Center. Unpublished report.

Tourangeau, R., Rips, L.J., & Rasinski, K. (2000). *The psychology of survey response*. New York: Cambridge University Press.