E-mail Subject Lines and Their Effect on Web Survey Viewing and Response

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This article investigates the effect of e-mail subject lines on survey viewing and survey response. Using two samples of students (low involvement with the survey sponsor and high involvement with the survey sponsor), the authors tested a variety of combinations of subject lines: the reason for the e-mail contact (survey), the sponsor of the e-mail (Liberal Arts University), a plea for help (request for assistance), and a blank subject line. The authors found a modest effect of subject line for the low-involvement sample, with blank subject lines yielding the highest response.

Keywords: survey; research methodology; e-mail contact; subject line

As we seek ways to increase response rates in electronic surveys, we cannot simply assume that the techniques proven effective in mail surveys will translate to web surveys (Couper, 2000). As Kaplowitz, Hadlock, and Levine (2004) have noted, Dillman's (2000) tailored design method took years of research to develop. To develop an equivalent protocol for web surveys, we must continually explore how the method of contact influences survey participation.

Although research on web surveys has greatly increased during the past several years, most of the research has focused on mode effects (e.g., Carini, Hayek, Kuh, Kennedy, & Ouimet, 2003; Cobanoglu, Warde, & Moreo, 2001; Kwak & Radler, 2002; Mehta & Sivadas, 1995; Pealer, Weiler, Pigg, Miller, & Dorman, 2001; Sax, Gilmartin, & Bryant, 2003; Shannon & Bradshaw, 2002; Yun & Trumbo, 2000) or web survey structure and design (e.g., Cook, Heath, & Thompson, 2000; Couper, Traugott, & Lamias, 2001; Crawford, Couper, & Lamias, 2001; Dillman, Tortora, Conradt, & Bowker, 1998; Dommeyer & Moriarty, 2000; Heerwegh & Loosveldt, 2002; Porter & Whitcomb, 2003b). However, we still know little regarding how the method of contact can affect web survey response rates. To date, researchers have examined the use of mixed-mode survey administration, where paper and electronic media are combined in one survey (Kaplowitz et al., 2004; Schaefer & Dillman, 1998), as well as the use of personalization, of statements of scarcity and requests for help (Porter & Whitcomb, 2003a), and of complex graphical designs in e-mail contacts (Whitcomb & Porter, 2004).

The goal of this article is to investigate the effect of e-mail subject lines on survey viewing and survey response. We look at e-mail subject lines because they are the equivalent of the postage stamp or envelope appearance in a paper survey. In paper surveys, both the stamp and the mailing envelope send a message to recipients about the content of the envelope (e.g., using first-class postage sends a message of importance to the survey recipient; Dillman, 2000). Similarly, the subject line of an e-mail informs the recipient of the e-mail content and,

depending on the message, may affect the decision to view the e-mail instead of treating the e-mail as spam and deleting it. As Tuten (1997) notes, if the e-mail is not opened by the recipient, the content of the e-mail (which can contain mention of an incentive or other response rate enhancing device) can have no effect.

Research on the influence of subject lines is limited and mixed. Consistent with the survey literature on requests for help, Trouteaud (2004) finds that including a request for help in the subject line increased response rates by 5% over a self-expression subject line that said, "Share your advice and opinions now." Smith and Kiniorski (2003) find the opposite, with subject lines that emphasized prizes and self-expression yielding higher response rates than did subject lines that appealed for help. A third study (Kent & Brandal, 2003) shows that a prize subject line actually decreased response rates by 14% compared to a subject line that simply stated the e-mail was about a survey. Clearly further research is needed to understand if subject lines affect survey response.

We look at both survey viewing and survey response because survey response is heavily dependent on survey salience (Goyder, 1982; Groves, Singer, & Corning, 2000; Heberlein & Baumgartner, 1978). Responding to a web survey is a multistep process: E-mail recipients must first open the contact e-mail, then click on the hyperlink that opens a browser with the survey web page, read the survey and determine whether to respond, click on radio buttons and drop-down boxes to fill out the survey, and finally submit the completed survey. Some aspect of the e-mail contact may encourage someone to click through to the survey, but some aspect of the survey (such as content) may cause the person to decline filling out the survey. Thus, click-through rates as well as response rates are important measures of the effectiveness of the e-mail contact. Studying how contact methods can increase response rates in web surveys is important given that response rates are declining (Smith, 1995; Steeh, 1981) and that modifications to survey contacts are inexpensive.

METHOD

This study was conducted in the spring of 2004 using two different web surveys and two samples. The two samples differed in their level of involvement with the selective liberal arts college sponsoring the survey. Participants in the first survey, 4,167 high school seniors who had requested information about the school but who had not applied for admission, had a low level of involvement with the school. This survey instrument asked nonapplicants about their perceptions of the school. Participants in the second survey, 1,985 undergraduates currently enrolled at the institution, had a much higher level of involvement with the school. Students in this high-involvement sample were freshmen, sophomores, or juniors in their spring semester, and the survey asked respondents to rate their abilities on various capabilities and types of knowledge.

To test the effect that the content of the e-mail subject line had on survey response, we divided both samples into eight experimental groups, using a $2 \times 2 \times 2$ factorial design. As seen in Table 1, all three factors pertain to the information conveyed by the subject line of our contact e-mails and have two levels each—the inclusion or exclusion of information in the subject line. The three factors are the reason for the e-mail contact (i.e., survey participation), the mention of the sponsor of the e-mail (i.e., Liberal Arts University, a pseudonym), and the plea for help (i.e., request for assistance). Each condition received a unique e-mail subject line.

The potential effect of the first factor on survey response is admittedly uncertain. Telling potential respondents that the e-mail is about a survey may increase response rates, decrease response rates, or have no effect. We included this factor in the experiment because using the

TABLE 1
Experimental Design: E-mail Subject Lines

E-mail Subject Line	Information Conveyed in the Subject Line			Low-Involvement Sample			High-Involvement Sample		
	Reason for E-mail	Survey Sponsor	Request for Help	Click-Through Rate (%)	Response Rate (%)	N	Click-Through Rate (%)	Response Rate (%)	N
Blank (no subject line)	—	—	—	24.2	18.8	521	58.9	54.0	248
Survey	X	—	—	20.9	15.9	521	58.1	52.4	248
Liberal Arts University	—	X	—	20.2	16.3	521	56.9	53.6	248
Request for assistance	—	—	X	23.2	17.5	521	57.7	52.0	248
Survey: Request for assistance	X	—	X	19.6	14.4	521	55.7	49.6	248
Liberal Arts University: Request for assistance	—	X	X	21.0	16.4	520	57.8	53.8	249
Liberal Arts University survey	X	X	—	16.9	14.0	521	55.2	50.0	248
Liberal Arts University survey: Request for assistance	X	X	X	19.4	14.4	521	54.0	49.6	248

word survey is a logical subject line for survey researchers conducting a web survey. The effect of the second factor should be positive. Previous research indicates that academic or government sponsorship of surveys yields a higher response rate than does sponsorship by other organizations (Fox, Crask, & Kim, 1988; Goyder, 1982; Heberlein & Baumgartner, 1978), so mentioning the name of an academic organization (vs. no mention) might increase response rates. The effect of the third factor should also be positive. Requests for help have been shown to raise response rates (Mowen & Cialdini, 1980; Porter & Whitcomb, 2003a).

An initial contact e-mail (see the appendix) requesting survey participation was sent to all participants, and nonrespondents were sent up to three follow-up e-mails. Each e-mail contained a hyperlink that logged the participant into the survey web site. The signer of the e-mail was the director of an office at the university in this study. The subject lines used were consistent across the initial and follow-up contacts within each experimental group.

RESULTS

To measure the effect of the information conveyed in the e-mail subject lines, we examined the rate at which students clicked on the hyperlink in the e-mail and the rate at which individuals submitted completed surveys. Table 1 presents the click-through and response rates by e-mail subject line for both samples. In the low-involvement sample (i.e., nonapplicants), click-through rates ranged from 16.9% to 24.2%, and response rates ranged from 14.0% to 18.8%. Surprisingly, the blank subject line condition had the highest click-through and response rates. Results for the high involvement sample followed a similar pattern, with the control group having the highest rates. In the high involvement undergraduate sample, click-through rates ranged from 54.0% to 58.9%, and response rates ranged from 49.6% to 54.0%.

Table 2 presents click-through and response rates for the three experimental factors by level of involvement. We conducted logit analyses using SAS PROC CATMOD in each sample separately with click-through and response rates serving as dependent measures to test the effect of the information conveyed by the subject line.

Click-Through Rates

In the analysis examining click-through rates for the low-involvement sample, main effects emerged for the reason for the e-mail factor, $\chi^2(1) = 5.47$, $p = .019$, as well as for the survey sponsor factor, $\chi^2(1) = 4.36$, $p = .037$. Click-through rates were significantly lower when the reason for the e-mail (i.e., survey) was included in the e-mail subject line than when the reason was omitted (–2.9 percentage points). Similarly, the click-through rate was significantly lower when the survey sponsor (i.e., Liberal Arts University) was identified in the e-mail subject line than when the sponsor was excluded (–2.6 percentage points). There where no significant interaction effects for click-through rates in the low-involvement sample.

No significant results emerged in the analysis examining click-through rates in the high-involvement sample. That is, e-mail subject lines did not influence students' decisions to open the e-mail and click on the survey URL.

Response Rates

In the analyses examining response rates, a main effect for the reason for the e-mail was found in the low-involvement sample. As with click-through rates for this sample, response rates were significantly lower when the reason for the e-mail was included in the e-mail sub-

TABLE 2
Click-Through and Response Rates by Experimental Level

	Click-Through Rate (%)		Response Rate (%)	
	Low-Involvement Sample	High-Involvement Sample	Low-Involvement Sample	High-Involvement Sample
Reason for e-mail				
Included	19.2	55.8	14.7	50.4
Excluded	22.1	57.9	17.2	53.4
Difference	−2.9*	−2.2	−2.6*	−3.0
Survey sponsor				
Included	19.4	56.0	15.3	51.8
Excluded	22.0	57.7	16.7	52.0
Difference	−2.6*	−1.7	−1.4	−0.3
Plea for help				
Included	20.8	56.4	15.7	51.3
Excluded	20.5	57.3	16.3	52.5
Difference	0.3	−0.9	−0.6	−1.3

*$p < .05$.

ject line than when the reason was excluded, $\chi^2(1) = 5.01$, $p = .025$ (response rates of 14.7% vs. 17.2%, respectively). In the high-involvement sample of undergraduates, no significant differences were found for response rates.

DISCUSSION

The content of the e-mail subject line made a modest difference in the sample with low involvement with the university, but it did not have an effect for the high-involvement sample. This effect is most likely due to a combination of curiosity and spam. When nonapplicants received an e-mail that did not describe the reason for the e-mail or that did not state the sponsor of the e-mail, they were uncertain of the content and were more likely to open the e-mail and click to the URL. Similar behavior allows viruses to infect computers as curious recipients of infected attachments click on the attachment to see what it is. Other subject lines provided some information regarding the nature of the e-mail. This information may have been perceived as resembling spam and may have dissuaded nonapplicants from opening the e-mail, which in turn precluded students from clicking on the URL. For example, a common spam e-mail purports to be from someone in Nigeria requesting assistance in retrieving money from a bank account. Thus, requesting assistance in the subject line (which provides little to no context) may not have an effect, whereas requesting assistance in an e-mail about a survey does have an effect (e.g., Porter & Whitcomb, 2003a; note also that their finding was conditional on mentioning a deadline). This effect was strongest for the e-mail subject lines that contained the word survey. Three out of the four groups that received an e-mail with the word survey in the subject line had lower response rates than did the blank-subject-line group.

The null results for the high-involvement sample may be caused by the fact that students are likely to open all e-mail originating from within their university as it may contain important information. Therefore, for this group, the subject line would be inconsequential in the decision to open and read an e-mail.

This study has demonstrated some support for the role of e-mail subject lines in survey participation. Given that the decision to participate in a web survey is a multistage process and given the significant findings for click-through analyses, the null findings that emerged for analyses with response rates as the dependent measure suggest that survey response rates may not be an optimal measure for testing the effectiveness of e-mail subject lines. The click-through rates examined in this study allow us to measure subject line effectiveness earlier in the decision-making process and to avoid confounding factors such as survey content and length.

Couper's (2000) comments regarding web survey design also ring true for contact methods using the electronic media:

> The notion of a one-size-fits-all approach to web survey design is premature. Furthermore, the web is a fundamentally different medium than paper. The range of design options, the visual features, and the required respondent actions all differ. We have much to learn about what design knowledge and practice translates across media and what does not. There is much work to be done to determine optimal designs for different groups of respondents and types of surveys. (p. 476)

In finding differences in the effectiveness of e-mail subject lines across our low- and high-involvement samples, we support Couper's (2000) view that our techniques will need to be custom tailored to the individuals we are trying to reach.

APPENDIX
E-mail Wording

Low Involvement Sample

Dear [first name]:

Some time ago, you requested information from the Admission Office at Liberal Arts University. In order to understand how students who inquired about Liberal Arts University view our school, we have developed the following short online survey. You are one of a small group of students who have been selected to provide feedback about our institution:

[survey URL]

When you click on the above link, you will be taken to a copy of the survey. The survey should take less than ten minutes to complete. Your responses will be completely confidential and your participation is strictly voluntary. The web site will be closed at midnight on Monday, March 1st.

Every effort has been made to make sure that you have not received this email in error. If you believe that you should not have received this survey, or if for some reason you do not wish to participate in the survey, please notify me by replying to this email.

Thank you very much for your cooperation.

Sincerely,
[sender name]
[sender title]

APPENDIX (continued)

High Involvement Sample

Dear [first name]:

I am writing to request your participation in Liberal Arts University's Key Capabilities Survey. This very short survey asks you to rate yourself on various capabilities and types of knowledge. To access the survey please click on the link below. You will be prompted to logon to the survey using your email id and password.

[survey URL]

Your participation in the survey is voluntary, and your responses will be confidential. Survey results will only be released in an aggregate form (for example, "85% of students stated that . . . . "). The survey should take less than 10 minutes to complete.

If you encounter any problems while taking the survey, please contact [sender name] at [sender e-mail address].

Thanks for your help.

Sincerely,
[sender name]
[sender title]

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