INCREASING WEB SURVEY RESPONSES WITH SECONDARY STUDENTS THROUGH THE USE OF INVITATIONS SENT VIA TEXTING

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Abstract - Survey research methods continue to adapt as newer modes of inquiry are introduced and refined. From face-to-face interviews to focus groups to phone surveys to mail surveys to email survey to web surveys the quest for information that reflects the population of interest continues. Researchers strive to provide the best inquiry methods that will produce the possible results. Key among these strategies is increasing response rates among sample participants. This paper presents the results of one survey effort that was faced with extremely low response rates from program participants who were between the ages of 16 and 18. By switching from an email invitation to a text invitation to the web survey site, participant responses approached 50% with one reminder.

Keywords - Surveys, Response Rates, Secondary Students, Texting

I. INTRODUCTION

Selecting appropriate survey methods has been discussed at length (cf. Dillman, 2014; Fowler, 2014). Taking into consideration the people to be surveyed, the data desired, researchers usually opt for the most cost-effective method available. Fifty years ago telephone surveys were considered an excellent strategy but the advent of telemarketers and cellphones seriously reduced the use of that method. Mail surveys also were a very common strategy that was used. In the last 20 years the currently ubiquitous internet combined with vast improvements in computer technologies have brought web surveys to the forefront. Having survey respondents access a link to the web has streamlined data collection and summary. Sophisticated, free to low cost access to programs to develop these surveys have greatly facilitated the process, as has the incredible growth in email presence by participants from very diverse backgrounds. The purpose of survey research is to find out what a particular group of people thinks about a predetermined set of topics. Confidence about the information gathered is very dependent on how many people invited actually complete the survey; this is known as response rate. A number of studies have investigated how to improve response rates. One study (Moore & Earnhart, 2017) attempted to use reminder postcards to improve response rates. Trespalacios and Perkins (2016) compared four different versions of an invitation email for a web survey with more than 1500 undergraduates and found that neither the degree of personalization nor the length of the email affected survey response or completion rates. Another study (Sappelton& Lourenco, 2018) examined whether blank or non-black email subject lines to invite participant response would influence the level of response rates; their hypothesis that blank lines would enhance response rates was not supported. Lewis and Hess (2017) varied the weekly reminder day and found it did not improve the response rates. Similarly, personalizing correspondence did not increase response rates (Dykema et al., 2019). Incentives are another strategy recommended to increase response rates (Dillman, 2014). Bauman (2010) compared two incentives (i.e., $1 cash and a raffle opportunity) and found the cash increased response rates whereas the raffle did not. Another study (Van Drie-Yockey, 2017) found that two different course embedded incentives significantly increased response rates when compared to no faculty generated incentive. Another study *Park, Park, Heo, & Gustafson, 2019) looked at 540 survey samples and conducted a factor analysis to identify reasons that students participate in web surveys; they found four significant factors: Format, Affiliation, Content, and Contact. While the survey research community offers a number of strategies to increase response rates (cf. Dillman, 2014; Fowler, 2014; Park, Park, Heo, & Gustafson, 2019), some researchers are questioning the advantage of these strategies in terms of return on the investment of time and resources. Lin, Hewitt, and Valderas (2017) examinedlow response rates and non-response bias. Lamber and Miller (2015) looked at college alumni surveys with low response rates and observed that the responding samples closely fit demographic and opinion profiles of larger samples of their cohort of graduating seniors. Fosnacht, Sarraf, Howe, and Peck (2016) reviewed hundreds of samples of undergraduates with relatively high survey response rates and found that extra efforts to increase response rates didn't really change the findings appreciably. They did observe that small samples should have about a 20-25% response rate, whereas larger samples could find reasonable estimates of effects with smaller response rates. Much of the research to enhance response rates to web surveys has focused on college students' course evaluations and alumni surveys. Bennett and DeBellis ((2016) reported that

when their university added a web survey option to the system of students evaluating courses in 2009, the web option was the more popular. They did observe, however, that overall response rates fell by 20%. Another study (Sax, Gilmartin, Lee, & Hagedorn, 2003)compared paper and web surveys with community college students. They found that the response rates were greater for the web survey and virtually no response bias differences between the two groups. Recognizing that the sensitivity of the information collected will influence response rates (Fowler 2014), researchers in the area of adolescent substance abuse prevention specifically focused on examining the feasibility of using web surveys to collect alcohol and drug use data from secondary students. One study (McCabe, Boyd, Young, & Crawford, 2005) examined several factors of data quality in a web survey administered to more than 1500 students. The study achieved an 89.1% response rate and researchers concluded that web surveys could be successfully implemented with economically and racially diverse groups of students in 6th through 11th grade. Another study (Raghupathy& Hanh-Smith, 2014) used a sample of more than 300 high school students to compare their responses about alcohol risk behavior using web surveys and paper surveys. They concluded the responses did not vary significantly. Using multiple data collection strategies to support survey data and increase response rate also has been studied. Burkhart et al. (2017) compared the advantages of additional mailings to telephone calls with a large national population of Medicare beneficiaries and concluded that the effectiveness of the two strategies varied by sub-groups. Israel (2014) collected survey data via email followed by postal invitations as reminders to non-respondents. When compared to a mail only option, response rates were lower but cost of the mixed method strategy was more favorable as 60% of respondents did so on the web. The literature reviewed argues that web surveys can be useful but that it's important to understand participants' contexts and what incentivizes them to respond. Multiple data collection strategies are promising, and more data should be welcome about them. The purpose of this study is to share how when one web survey effort was faced with extremely low response rate (18%) from program participants who were between the ages of 16 and 18, switching from an email invitation to a text invitation increased participant response rate to 68%.

II. DETAILS EXPERIMENTAL

2.1 Program Description

The program that was being evaluated engaged secondary school students in environemental service. According to the program website: Youth Crews are open to all youth ages16-18 . It is a program designed to provide leadership and hands-on workforce experience for youth. This is a crew-based format with 8-12crew members (youth). Two Crew Leaders supervise, facilitate the education curriculum, and engage in conservation based projects with youth in their communities. Crew-members are paid a weekly stipend. Youth Crews operate for two-week sessions where participants camp, work, and recreate together for the duration of the session. Crews begin on Sunday and run continuously through the second Friday. Youth Crew provides unique entry-level workforce opportunity for youth that builds on job readiness skills, resiliency skills, community engagement, and environmental awareness. Participants are paid a wage to provide service to local and surrounding organizations. Projects include beautifying, weeding, trail work, restoration, gardening, and other conservation-based projects. Program emphasis is on job readiness, leadership skills, life skills training, alcohol and substance awareness, environmental education, and civic and social responsibility.

2.2 Sample

In consultation with the program staff, the evaluator initially decided to interview a sample of the 30 2018 RYC participants. The purpose of the interview was to ascertain the extent to which the immediate post program evaluation data, which showed substantial decreases in alcohol and marijuana use were sustained a year after program completion. The decision to interview was based on the sensitive nature of the questions, the geographically diverse locations of participants, and the fact that current email addresses were available for the entire cohort. It was thought that participants would be more forthcoming in an interview that with a web survey. The program coordinator sent an email to the 30 participants alerting them to the study, and that they might be contacted for an interview. As an incentive to participate, those completing the interview were told that they would receive a throat warmer with the program logo on it. A week later the evaluator sent the 11 randomly selected participants individualized emails inviting them to participate in an online interview and identify possible interview days and times. Of the 11 contacted one responded after the first contact, and a second agreed to be interviewed two weeks later, after a reminder had been sent out. Given the small sample size, this 18% response rate was not considered acceptable. This was surprising in that a similar process, using emails to contact participants asking the same questions with a slightly older group of 18 to 25 year olds yielded a much higher response rate. The evaluator communicated this concern to the program staff and they observed that secondary students tend not to check or answer emails. Whereas, they are much more responsive to texting. The decision was made to create a web

survey with the same questions and then contact the participants via text with the survey link. The 19 participants who had not been contacted initially received the text link and with one reminder text.

2.3 Survey

The initial interview survey was developed collaboratively with the program staff. The evaluator prepared a draft of the survey for the program staff to review and then revised, based on their feedback. The survey asked the following questions:

RMYC 2018 RYC Participant Survey

1) Tell me overall, how you would rate your experience in the program: Excellent Good Fair Poor Please explain the reason/s for your rating:
2) Now a year later, what would you say were the things you liked best about the program? Why?
3) What things did you like least about the program? Why?
4) The exit evaluation of the program shows that participants greatly reduced their use of alcohol and marijuana. Why do you think that was true?
5) If you were one of the participants who reduced your use of alcohol and marijuana, how long did that last after the program ended? If not, why not?
6) What, if any, job skills did you get from your participation?
7) How, if at all, did your participation in the program affect your career thinking?
8) Thank you so much for your time and thoughts. Is there anything else you think that we should know?

With the decision to create a web survey, the evaluator transferred the interview questions verbatim to a web survey format. This was done with some confidence, as one of the program coordinators had received an email response to the survey questions that was fairly detailed and comparable to the interview data that had been collected from another group.

III. RESULTS AND DISCUSSION

The web survey elicited 13 responses to the 19 text requests with one reminder for a 68% response rate compared with the initial sample response rate of 18%. The data that were received were of similar detail and depth as the interview data collected, so the web survey strategy worked.

IV. CONCLUSION

The results of the study support the use of web surveys when collecting program participant data about extended outcome effects. Further the use of texting in lieu of emailing secondary students as a way of contacting them with links to complete web surveys was much more effective. This was not true for a similar but college aged group of participants. It lends additional support the literature that emphasized the importance of understanding the participant characteristic in order to enhance response rates.

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