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Article

Effects of Mentioning the Incentive Prize in the Email Subject Line on Survey Response

Robert Janke
Learning Services Librarian
Okanagan Campus Library, University of British Columbia
Kelowna, British Columbia, Canada
Email: robert.janke@ubc.ca

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Abstract

Objective – This study examined the effects that mentioning the survey incentive prize in the subject line of a reminder email had on the response rate and data quality. To date, manipulation of the subject line, specifically in terms of mentioning the incentive prize, has received limited attention in the survey design literature.

Methods – The delivery of the survey invitation is discussed in terms of the timing of the launch and reminder emails. Particular emphasis is given to the design of the email subject line and justification of the format. Weekly response rates from four LibQUAL+™ surveys were compared. In addition, weekly responses for one year were analyzed using SPSS to investigate if there were any between means differences in terms of three elements of data quality. The three elements were: length of time it took to complete the survey, the number of core questions with an N/A response, and the number of illogical responses where minimum scores were higher than desired.

Results – The response rates for the second week were grouped together based on the presence or absence of the subject line manipulation. There was a significant difference between these means (4.75%, p 0.033). There was no statistical difference in regards to the measures of data quality as determined by a one-way ANOVA test.

Conclusions – Reminding survey participants with an email that mentions the incentive prize in the subject line appears to increase response rates with no deleterious effects on data quality. The results of this investigation are encouraging, and those running the LibQUAL+™ survey in their universities should consider implementing this method to increase response rates. Further research to replicate these findings in other contexts and using an experimental design would be beneficial.

Introduction

The library at the Okanagan campus of the University of British Columbia (UBCO) has surveyed all of its faculty and students on three occasions using LibQUAL+™. LibQUAL+™ is a standardized survey developed by the Association of Research Libraries to measure the service quality perceptions of library users. The surveys have taken place in 2007, 2010, and 2013. As with many other libraries that survey their users, UBCO offered lottery incentive prizes in the hopes that it would increase response rate. In survey design, lottery incentive prizes differ from paid incentives in that the individual has a chance to win the given prize, as opposed to paid incentives, either pre- or post- survey completion, that guarantee a prize for participants. As is typically the case for lottery incentives, UBCO Library made participants aware of the incentive prize in the body of the email inviting them to complete the survey (see the Appendix for a sample of the invitation email). The response rate to the 2007 survey was 17.9%. However, with the explosion in the popularity of smart phones and other mobile devices, the author became curious in the lead up to the launch of the 2010 survey about the extent to which students were reading the full invitation to become aware that an incentive prize was being offered. The reasoning behind this concern is that the smaller screens may make it less appealing to read long emails, or the configuration of some of the email programs may put a greater emphasis on the subject line in the decision to open or delete the full message. As a result, this study addressed the following research questions:

1) Would giving the existence of the lottery incentive prize more prominence, by mentioning it in the subject line of the email invitation, increase the survey response rate?

2) If mentioning the incentive prize increased the response rate, would this have a negative effect on the quality of the survey responses?

Response rates should be a concern to all survey administrators. According to Manzo and Burke (2012), response rates for all types of surveys have been declining over the last decade, and low response rates threaten the validity of surveys. This is because as a group, non-responders may share similar characteristics. By not capturing their data, the sample and survey results would be biased.

Literature Review

There is considerable interest in the use of lottery survey incentive prizes on university campuses, so much so that there have been surveys by institutional researchers (Porter & Whitcomb, 2003) and librarians (Buck, Nutefall, & Bridges, 2012) to gauge the level of their use. This obvious interest aside, the evidence regarding the effects of lottery incentives on survey response rates is contradictory.

A meta-analysis by Cook, Heath, and Thompson (2000) noted that surveys using an incentive seemed to be associated with a lower response rate. In contrast, another meta-analysis by Göritz (2006) concluded that there was a significant odds ratio of 1.19 showing that incentives encourage individuals to start web surveys and complete them (odds ratio of 1.27). Expressed

differently, an incentive should increase the odds of a person beginning the survey by 19% and completing it by 27% over the odds without incentives. In terms of absolute percentage differences, Göritz (2006) concluded that an incentive should increase the response rate by an average of 2.8% and retention by 4.2%.

These two meta-analyses studied the effects of incentive prizes on response rates. There is an implied assumption, however, that the responder is aware that a prize is offered when the incentive prize is mentioned in the body of the invitation. This assumption is particularly interesting in light of a report from a Canadian post-secondary library, using Constant Contact (email tracking software), that as little as 33% of their users bothered to open the email inviting them to take their LibQUAL+™ survey in 2012 (Reed, 2012). One of the reasons that invitees may or may not open and read an email is the subject line. The subject line, in contrast to the surveyor's name and email address, may be the most likely element of the invitation that encourages recipients to open and review its contents (Manzo & Burke, 2012).

Research to date on the effects of the subject line of the invitation email has been sparse. In research with high school seniors as well as undergraduates, Porter and Whitcomb (2005) manipulated the reason for the email, survey sponsor, and whether or not the subject line included a plea for help. Trouteaud (2004) also used a plea manipulation in the subject line (Please help... vs. Share your advice with...) in an experiment conducted on American subscribers to a large company's daily email newsletter. Concerning research into the effects of mentioning the incentive prize in the email invitation to a web-based survey, only two studies were found.

Linegang and Moroney (2012), in an experiment at the University of Dayton (UD), manipulated the subject line to gauge its effects on response rates among undergraduates invited to take a survey. Both experimental groups received a pre-survey notification, a survey notification, and a reminder notice. All recipients were entered into a draw for gift certificates from local restaurants, and this information was communicated in the text of the email. Linegang and Moroney reported neither the value of these gift certificates, nor the number that they would be giving away. One group received the subject line "UD Computer Survey" while the other received the subject line "FREE FOOD!!! UD Computer Survey" in all of their communications. It was reported that the response rate for the group that received the email subject line that mentioned the incentive prize was 24.1% compared to 30.3% for the group where the subject line did not mention the incentive prize, a 6.2% lower response rate for the group invited to the survey with an emphasis on the incentive prize.

Similarly, Kent and Brandal (2003) also found a decreased response rate among their experimental group that received an e-mail subject line that mentioned the incentive prize. The subjects for their experiment were taken from the customer database of loyalty cardholders from a Norwegian company. Kent and Brandal do not specify the subject line that did not emphasize the incentive prize, only saying that it was a survey from the company, whereas the other group's email had the subject line "Win a weekend for two to Nice." The response rates for the two groups were 66% and 52% respectively, a 14% lower response rate for the group invited to the survey with an emphasis on the incentive prize.

These counterintuitive results suggest that perhaps the recipients of the email which emphasized the incentive prize believed the email was "spam" - that is, unsolicited email from a dubious source where there may or may not be an actual incentive prize to be won.

Methods

Sample

This research is based on data collected at UBCO using the LibQUAL+™ web survey instrument. The first time LibQUAL+™ was used at the campus was in 2007, and this serves as a baseline for purposes of comparison. To test the effect of mentioning the incentive prize on survey response the author manipulated the content of the subject lines in the 2010 and 2013 survey cycles.

All three survey cycles launched at the start of the fourth week of classes in the second term of the winter session. In all cases, there was a single incentive prize worth approximately $300 mentioned in the body of the email invitation. With minor exceptions, the email invitations were identical each year: an example is in the Appendix. The reminder email contained all of the text of the invitation with the addition of a paragraph at the beginning apologizing to those individuals who already completed the survey. (As no personal data were collected, the library could not determine who completed the survey and remove them from the invitee list). In 2007, the incentive prize was a digital camera. The subject line of the invitation and reminder emails, sent at one week intervals, was neutral with respect to mentioning the incentive prize, and simply said *Library Survey*.

Data Collection

Because of the negative effects found in other research that mentioned the incentive prize in the email invitation (Kent & Brandal, 2003; Linegang & Moroney, 2012), great attention was paid to ways to alleviate the spam effect that may have influenced the outcome of these studies. In both of the intervention years, 2010 and 2013, the invitation email had the following subject line: *Library Survey - Please let us know what you think of our service*. Only the reminder email, sent one week after the invitation, mentioned the incentive prize: *Library Survey – you could win an [name of incentive prize]*. The purpose of this two-stage approach was to build trust and familiarity with the initial invitation and then mention the incentive prize with the follow-up. A final strategy employed was to construct the subject lines in a consistent manner that made it clear that the email was indeed an invitation to a reputable survey. This strategy avoided the use of excessive capitalization, as in the case with Linegang and Moroney, and mentioned the word survey, unlike in the research by Kent and Brandal.

The final reminder, sent a week after the first, had the following subject line: *Library Survey – your last chance to win an [name of incentive prize]*. In 2010, the incentive prize was an iPod touch, while in 2013 it was an iPad mini. Enrolment Services sent out the invitations and reminders, and the author's institutional email address appeared as the sender in order to be the one to receive any replies with questions.

In addition to response rate data from 2007, data from another institution that also ran LibQUAL+™ in 2013 was included for comparison purposes. The Vancouver campus of the University of British Columbia was chosen as they also ran the survey in the second term of the winter session and sent survey reminders at one week intervals. Instead of surveying all undergraduate and graduate students, they sampled from their population. The subject line for their invitation and first reminder email mentioned the existence of incentive prizes but did not specify what they were. More importantly, there was not the specific manipulation of mentioning the incentive prize beginning with the reminder email. The subject lines were: initial invitation *UBC Library Survey – Tell us what you think & enter to win prizes*; first reminder *UBC Library Survey – Provide your feedback & enter to win prizes*; final reminder *UBC Library Survey – One week left to provide your feedback*. The body of the email invitation mentioned the incentive prizes of an iPad mini and six $25 gift cards.

Data Analysis

Excel files containing all survey data from the various survey cycles, supplied by LibQUAL+™, were used to generate the weekly and overall response rates. Data quality was assessed using the raw data from the 2013 survey and analyzed using SPSS, version 19, to see if there were differences in data quality between the responses submitted during each week using a one-way ANOVA test. The raw data file from LibQUAL+™ includes the date that the survey was submitted, facilitating the grouping of responses. Variables supplied in the survey data that were analyzed for quality include STime, the length of time it took the respondent to fill out the survey in seconds, CountNA, the number of core items where there was an N/A response, and finally CountINV, the number of illogical responses where minimum scores are higher than desired. CountINV is unique to the core questions in LibQUAL+™, where for each question the respondent provides three responses on a scale of 1-9, their desired and minimum levels of service as well as where they perceive the service quality of the library to be. Because an individual's minimum score should not exceed their desired, instances where this occurs would indicate a responder who is not paying close attention to the actual content of the questions.

Results

Table 1 details the number of students surveyed in a given year and the number of valid surveys received after the initial invitation and after each of the two reminders, as well as corresponding weekly response rates. 2013V represents the response rate from the Vancouver campus survey. The calculation of the weekly response rates was based on the premise that those individuals who had responded in the previous week(s) were unlikely to respond again and were therefore removed from the denominator. The final column reflects the overall response rate for the different years and was calculated by simply dividing the total number of responses received over the course of the survey by the number of students surveyed.

Although there is an increase in overall response rate between the 2007 and the 2010 and 2013 iterations, 5.1% and 1.2% respectively, 2007 marked the only year that the long version of the LibQUAL+™ metric was used. As a result, attention should be paid to the significant differences in response rates for week 2, following the reminder email, and the change in the subject line to emphasize the incentive prize in years 2010 and 2013, rather than a comparison of the overall response rate. This is because the much shorter LibQUAL+™ Lite survey was used

Table 1
Valid Surveys Received per Week Expressed as a Weekly Response Rate

Year	Number of Students Surveyed	Valid Surveys Week 1	Response Rate Week 1	Valid Surveys Week 2	Response Rate Week 2	Valid Surveys Week 3	Response Rate Week 3	Overall Response Rate
2007	4132	325	7.9%	239	6.3%	176	4.9%	17.9%
2010	6160	541	8.8%	599	10.6%	278	5.5%	23%
2013	8069	403	5%	778	10.1%	358	5.2%	19.1%
2013V	4376	376	8.6%	195	4.9%	112	2.9%	15.6%

in 2010 and 2013, which may confound inter-year comparisons of overall response rate. Figure 1 compares the weekly response rate graphically.

Table 2 focuses on the response rates for week 2 and groups them together based on whether or not the incentive prize was mentioned. The mean response rate for the baseline data (no manipulation) for 2007 and 2013V was 5.6%, while the mean response rate for the years where there was a manipulation of the subject line, 2010 and 2013, was 10.35%. When the incentive prize was mentioned in the subject line in the reminder email, the response rate for that week was significantly higher (4.75%, *p* 0.033).

With respect to data quality, Göritz (2006) raises some concerns in regards to offering incentives, namely, individuals completing the survey multiple times or simply entering "rubbish" responses in order to get to the end of the survey and be eligible for the incentive. For this investigation, there were no statistically significant differences between group means as determined by a one-way ANOVA (scores were all above .05) for STime, CountNA, and CountINV, indicating there was no more "rubbish" entered when the incentive prize was mentioned than when it was not.

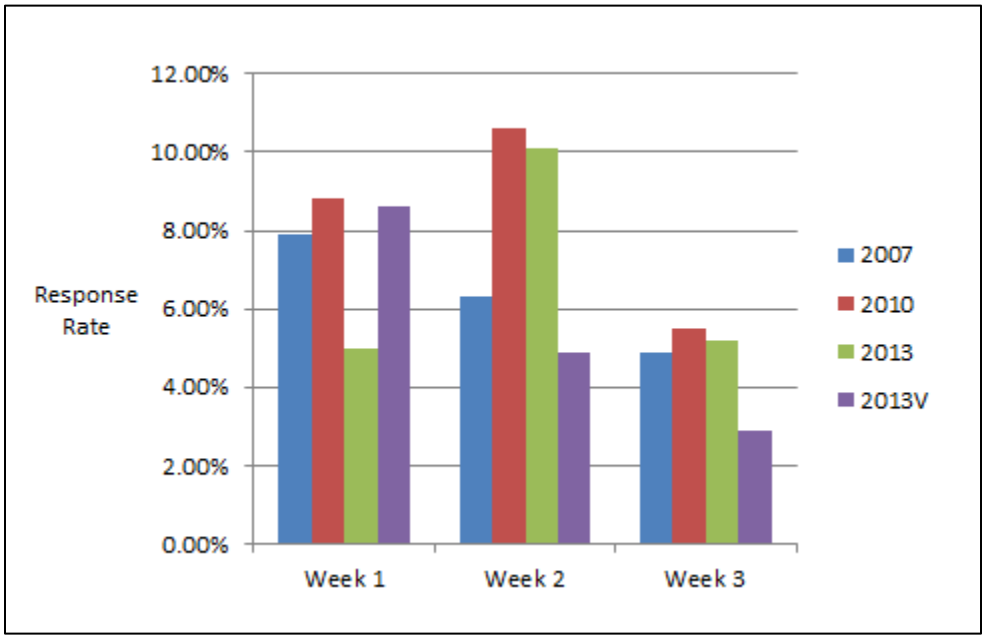

Figure 1
Comparisons of weekly response rates.

Table 2
Response Rates for Week 2

	Mean	Standard Deviation
Incentive Mentioned (2010 & 2013)	10.35%	0.35
Incentive Not Mentioned (2007 & 2013V)	5.6%	0.99
Difference	4.75%*	
*One tail t-test of significant differences (p<.05)		

Discussion

The results of this study suggest that mentioning the incentive prize in the subject line of the reminder email yields, on average, a 4.75% higher response rate for the given week. This is contrasted with Linegang and Moroney (2012), who found a 6.2% lower overall response rate for the invited with emphasis group and Kent and Brandal (2003) who found a 14% lower response rate. One explanation for this difference could be how the subject lines were constructed in the current investigation, most notably the absence of excessive capitalization and inclusion of the word "survey."

Unfortunately, it is difficult to gauge the effects this study had on the overall survey response rate because of a lack of experimental comparisons in the design. The largest external baseline for overall response rates that could be found averaged the rates from 13 post-secondary libraries that used a 100% Lite version of LibQUAL+™ in 2010. That survey of LibQUAL+™ administrators by Buck et al. (2012) reported an average response rate of 17%, which is 6% lower than the response rate of 23% that UBCO obtained in 2010. Taking that 6% difference and the 3.5% difference observed in the 2013 response rates between the two campuses of UBC does indicate a positive trend line for the effects of mentioning the incentive prize. The decision to complete a survey is complex, with multiple variables at play, making these inter-institutional comparisons less than ideal. See below for a suggested course of research that would better establish the effects on the overall response rate.

In regards to data quality, analysis of the 2013 survey responses indicated no inter-week differences on the measures chosen for analysis. These results are similar to those reported elsewhere that found no statistically significant differences in regards to the response speed (Heerwegh, 2006) and item non-response (Heerwegh, 2006; Sánchez-Fernández, Muñoz-Leiva, & Montoro-Ríos, 2012) when comparing groups that were either offered or not offered an incentive prize to complete a survey.

A practical implication of this research for librarians and information professionals who are delivering LibQUAL+™ surveys via email is that mentioning the incentive prize in the reminder email will increase response rates for the given week and may improve overall response rates. Survey administrators should also have confidence that implementing the strategies outlined in this study will not have a negative impact on the quality of responses provided by the respondents.

Limitations & Future Research

The post hoc design of this investigation does not permit strong conclusions with regard to the exact effects mentioning the incentive prize in the subject line has on overall response rates for the LibQUAL+™ survey. However, when contrasted with the limited literature in this area (Kent & Brandal, 2003; Linegang & Moroney, 2012) and their findings of a negative influence on response rates, it does make a strong argument for further research. In the future, it would be beneficial to create an experimental design in which three groups are randomly generated. One group would be invited and reminded about a survey with an email that does not mention the incentive in the subject line. A second group would be invited with a neutral subject line, but reminded with a subject line that mentions the incentive prize. Lastly, a third group would be invited and reminded with a subject line that mentions the incentive prize in both instances. Of course, if such research were carried out on a single university campus, one would have to keep in mind the concern of between experimental group communication raised by Porter and Whitcomb (2003), communication that is all the more likely in this time of hyper connectedness and when there are potentially valuable incentive prizes available to be won.

Related to survey data quality, another aspect that deserves further attention would be a comparison of click-through rates and completion rates. Although out of the scope of this investigation, comparing these two rates for instances when the prize was mentioned and when it was not, would give a more complete picture as to whether mentioned incentives encouraged someone to click through to the survey but once they viewed the survey for whatever reason they declined to fill it out.

Another interesting line of inquiry would be other aspects of subject line composition that may have an influence on response rate. One example would be moving the mentioning of the incentive prize to earlier in the subject line. For instance, it might be interesting to compare the effects of the following subject line *Library Survey – you could win an [name of incentive prize]* with *You could win an [name of incentive price] – Fill out the library survey*.

Conclusion

Increasing response rates for surveys conducted on university campuses is an area of interest for both librarians and institutional researchers alike. A common approach to attempt to increase response rates is to offer a lottery incentive prize. This study demonstrated a beneficial way to increase the response rates for the LibQUAL+™ survey following the reminder email by manipulating the email subject line. In contrast to earlier studies, this study found that mentioning the incentive prize in the subject line of the reminder email increased the response rate. Further investigation would permit conclusions on the effect that this manipulation had on the overall response rate for the survey, not just for a given week that it was open. In regards to data quality, this study found no differences between the weeks where the subject line manipulation occurred and when it did not for the three variables chosen for investigation. These results echo research conducted elsewhere on incentives and data quality. Results of this study should give survey administrators confidence that adopting the strategy outlined in this investigation should not only increase the response rate for the week following the reminder email but should also not attract an inordinate amount of careless responses used as a vehicle for entry into the draw for the incentive prize.

References

Buck, S., Nutefall, J. E., & Bridges, L. M. (2012). "We thought it might encourage participation." Using lottery incentives to improve LibQUAL+™ response rates among students. *Journal of Academic Librarianship, 38*(6), 400-408. doi:10.1016/j.acalib.2012.07.004

Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web- or internet-based surveys. *Educational and Psychological Measurement, 60*(6), 821-836. doi:10.1177/00131640021970934

Göritz, A. S. (2006). Incentives in web studies: Methodological issues and a review. *International Journal of Internet Science, 1*(1), 58-70. Retrieved 10 Feb. 2014 from http://www.ijis.net/

Heerwegh, D. (2006). An investigation of the effect of lotteries on web survey response rates. *Field Methods, 18*(2), 205-220. doi:10.1177/1525822X05285781

Kent, R., & Brandal, H. (2003). Improving email response in a permission marketing context. *International Journal of Market Research, 45*(4), 489-503. Retrieved 10 Feb. 2014 from https://www.mrs.org.uk/ijmr

Linegang, M. P., & Moroney, W. F. (2012). Effects of cover letter subject line and open-ended question response area on responding to an internet survey. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 56*(1), 1268-1272. doi:10.1177/1071181312561225

Manzo, A. N., & Burke, J. M. (2012). Increasing response rate in web-based/internet surveys. In L. Gideon (Ed.), *Handbook of survey methodology for the social sciences* (pp. 327-343). New York, NY: Springer. doi:10.1007/978-1-4614-3876-2_19

Porter, S. R., & Whitcomb, M. E. (2003). The impact of lottery incentives on student survey response rates. *Research in Higher Education, 44*(4), 389-407. doi:10.1023/A:1024263031800

Porter, S. R., & Whitcomb, M. E. (2005). E-mail subject lines and their effect on web survey viewing and response. *Social Science Computer Review, 23*(3), 380-387. doi:10.1177/0894439305275912

Reed, K. (2012, November 27). Getting ready for LibQual 2013. Message posted to LibQual-Canada electronic mailing list, archived at http://www.mailman.srv.ualberta.ca/mailman/listinfo/libqual-canada

Sánchez-Fernández, J., Muñoz-Leiva, F., & Montoro-Ríos, F. J. (2012). Improving retention rate and response quality in web-based surveys. *Computers in Human Behavior, 28*(2), 507-514. doi:10.1016/j.chb.2011.10.023

Trouteaud, A. R. (2004). How you ask counts: A test of internet-related components of response rates to a web-based survey. *Social Science Computer Review, 22*(3), 385-392. doi:10.1177/0894439304265650

Appendix
Example of Invitation Email

You are invited to participate in a comprehensive survey of library service quality. The survey, known as LibQUAL+™, assesses satisfaction with collections, services, access, and space at participating academic libraries throughout the world. Because so many libraries use LibQUAL+™, it allows us to compare how we are doing with other libraries in Canada, as well as with our colleagues at the UBC Vancouver campus. These results help us create the library you need in the future. We value your input. Speak up!

Past experience indicates it takes an average of only 5 minutes to complete the web-based survey. Please keep in mind that all the core questions must be completed for your results to be tallied in the overall totals and that if you do not wish to respond to a particular questions, just select the "NA" box in the right hand column.

To take the web-based survey, please click on: [survey URL]

The survey will be open from [survey dates]

Incentive draw:
Your time is important! Thank you! The Library is offering an iPad mini to a randomly selected

participant in the survey. If you choose, you may enter the draw by entering your e-mail address at the end of the survey.

Confidentiality:
All responses are held in strictest confidence. No identifying links between responses and the individual are retained. The only identifying piece of information, (your e-mail addresses if you choose to enter the draw), is stored separately from the survey results and is discarded after the winner has been identified.

More information:
To see more information about the survey and its goals, please see: [URL for survey information]

Whom to contact:
If you have any difficulty accessing or taking the survey or have any other questions or comments about the LibQUAL+™ survey at UBC Okanagan, please contact [survey administrator] by e-mail at [administrator's address]

Thank you for your help.
[name and rank of Chief Librarian]