LORE methodological note 2014:3

The effect of reminders – first case

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ABSTRACT

This methodological-note examines the effect of number of reminders on participation rates. The results show that more reminders increase participation rates, but the return is diminishing with each extra reminder.

Introduction and hypothesis

A common choice for survey practitioners is whether to send another reminder or not to their sample. That choice is context dependent; a specific number of observations might need to be met or there is a time constraint. A fairly high participation rate is an important aim at LORE, which is why 2 reminders are usually thought of as a reasonable number of reminders. This note seeks to find out what the gains are in terms of participation when a more reminders are sent out. The hypothesis is that more reminders produces higher participation rates, but that the return is diminishing with each extra reminder.

Data and results

The experiment was carried out between the November 14 and December 18, 2013 in the eighth wave of the Citizen Panel. The experiment group sizes can be seen in table 1. Microsoft addresses were excluded from the experiment since many of them bounced (up to 70-80 percent), caused by Qualtrics being blacklisted at the time (as of mid-spring 2014, this was no longer a problem).

Table 1. Sample sizes in treatment groups

Experiment group	Initial N	Final N	Participation rate (NPR)
One reminder	1,000	739	60
Two reminders	14,130	10,047	66
Three reminders	500	348	69
Four reminders	500	348	72

Comments: The participation rate is calculated as the number of eligible responses (here <50% item nonresponse) divided by the sample size (which does not include bounces).

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Group sizes were decided based on the perceived risk of getting a too low participation rate: one reminder, or a too high number of future panel attrition: three-four reminders. A short look at the final participation rates indicates that the largest difference is between having 1 or 2 reminders, with a difference of 6 percentage points. A one-way ANOVA shows that the difference in participation varies significantly depending on the number of reminders ($F(3, 10{,}931) = 6.35$, $p < 0.001$). Figure 1 shows cumulative participation rates for each group and figure 2 shows the difference in participation rates as compared with 2 reminders.

Figure 1. Participation rate by field day

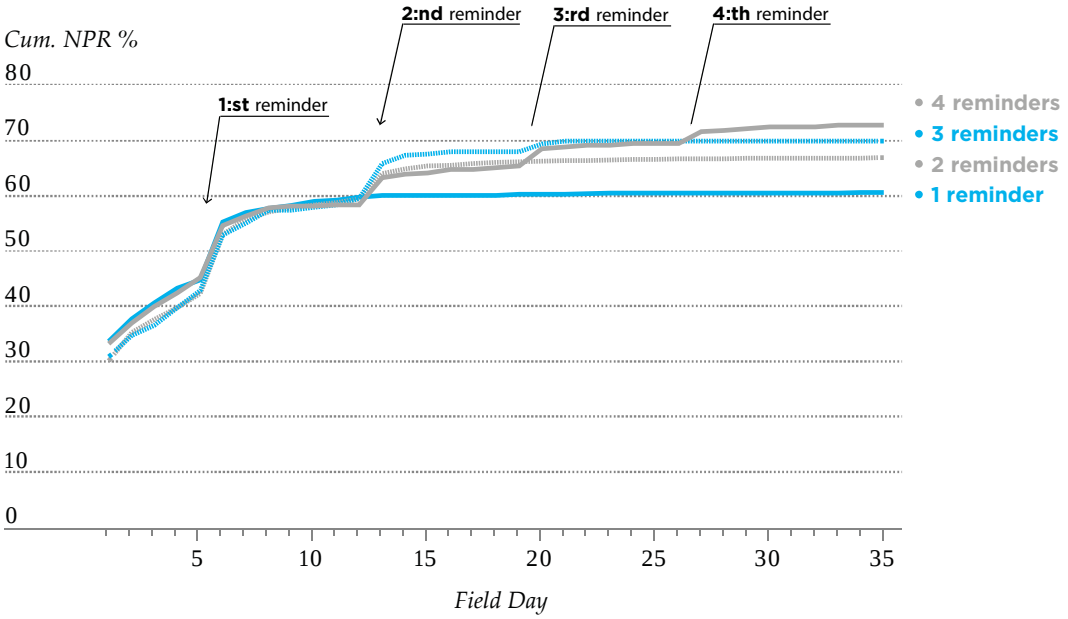
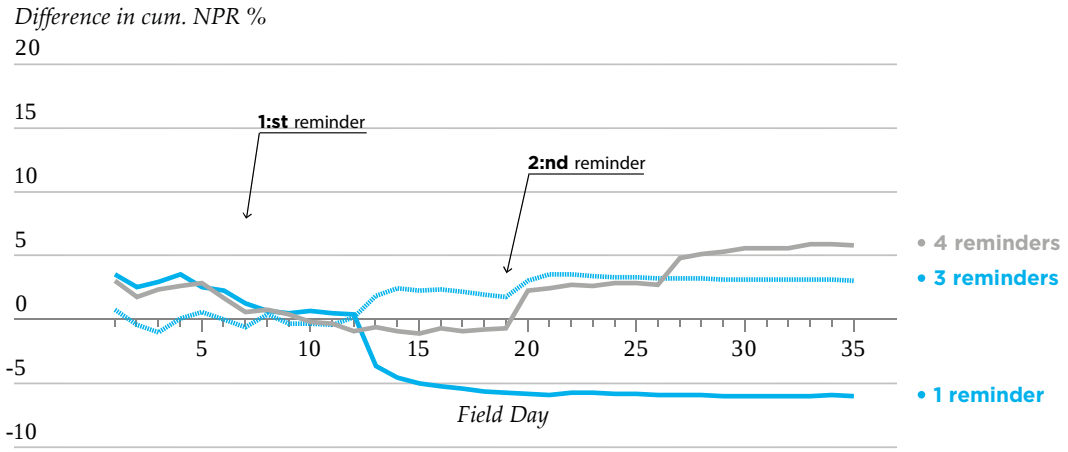


Figure 2. Difference in participation rates (compared with 2 reminders)



To make certain that these differences are not due to any difference in demographics or other common response propensity factors between the groups receiving different number of reminders, table 2 displays odds ratios from 4 separate logit regressions.

Table 2. The effect of different number of reminders on survey participation (odds ratios)

	Reference category 1	RC2	RC3	RC4
1 reminder	-	0,56***	0,38***	0,31***
2 reminders	1,78***	-	0,68*	0,55**
3 reminders	2,63***	1,48*	-	0,81
4 reminders	3,24***	1,82**	1,23	-

Comments: Each column shows odds ratios from a logit regression where one of the reminders is the reference category while the other three are dummies. Controlling for gender, age, education, political interest and probability/opt-in sample, as well as response behavior in the two waves before, and two waves after. All regressions: N=6,327, pseudo R: 0,41. *p<0.1, **<0.01, ***<0.001.

The interpretation of table 2 is that the greatest increase in odds to respond when adding one reminder and controlling for other factors is adding a second reminder; a 78% increase. The relative gain of adding another reminder, is smaller with a 48% increase. However, if another experiment group with no reminders would have been included, the largest relative gain would probably have been having one reminder rather than none.

To conclude, more reminders leads to higher participation rates, but the costs of more reminders are uncertain and outside the scope of this experimental study. Potential costs are both practical in terms of panel attrition (if a panel is used), but there are also ethical concerns due to the voluntary nature of surveys. In most cases, it is impossible to divide nonrespondents into contacts and noncontacts. Nonrespondents that have been successfully contacted will at some point during the field work turn into implicit refusal. To keep reminding this latter category of respondents is questionable, while reminding noncontacts is not problematic at all. That the return is diminishing with each added reminder is however beyond doubt.

Improvements in future studies could be adding a no reminder-group as well as experimenting with reminder timing, i.e. the time length between reminders.

The Laboratory of Opinion Research (LORE) is an academic web survey center located at the Department of Political Science at the University of Gothenburg. LORE was established in 2010 as part of an initiative to strengthen multidisciplinary research on opinion and democracy. The objective of the Laboratory of Opinion Research is to facilitate for social scientists to conduct web survey experiments, collect panel data, and to contribute to methodological development. For more information, please contact us at:

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