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MOBILE WEB SURVEY DESIGN: SCROLLING VERSUS PAGING, SMS VERSUS E-MAIL INVITATIONS

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There is some evidence that questionnaire design (scrolling or paging) and invitation mode (SMS or e-mail) have an impact on response rates in web surveys completed on personal computers (PCs). This paper examines whether these findings can be generalized to mobile web surveys. First, we explore the effect of scrolling versus paging design on the breakoff rate, item nonresponse, and completion time in mobile web surveys. Second, we investigate which type of invitation and reminder mode (SMS or e-mail) is more effective in terms of producing higher participation rates and maximizing the percentage of respondents who complete the survey via a mobile device rather than a PC. The paper summarizes the results of an experiment conducted among members of a volunteer online access panel in Russia, who were asked to complete the survey using a mobile device. We find that the scrolling design leads to significantly faster completion times, lower (though not significantly lower) breakoff rates, fewer technical problems, and higher subjective ratings of the questionnaire. We also find that SMS invitations are more effective than e-mail invitations in mobile web surveys.

KEY WORDS: Invitation mode; Mobile web surveys; Nonresponse; Participation rates; Survey design.

1. INTRODUCTION

The past few years have seen a rapid rise in the use of mobile devices to complete web surveys. For example, Kinesis (2013) reports that mobile traffic in their surveys in the United States and Europe increased from 23 percent in 2012 to 43 percent in 2013. Panel providers report the proportion of mobile respondents ranging from 6 to 30 percent, depending on the panel structure, survey subject,

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and country (Baker-Prewitt 2013; Peterson, Mechling, LaFrance, Swinehart, and Ham 2013; Schmidt and Wenzel 2013). This rapid rise in mobile web use has led to a growing discussion of the design of mobile-friendly questionnaires to reduce nonresponse and measurement error in web surveys (Callegaro 2012; Couper 2013; Peterson et al. 2013). Most of the papers focus their attention primarily on measurement error, comparing data quality between PC and mobile web survey modes (see Guidry 2012; Baker-Prewitt 2013; De Bruijne and Wijnant 2013; Lattery, Park Bartolone, and Saunders 2013; Mavletova 2013; Mavletova and Couper 2013; Stapleton 2013; Buskirk and Andrus 2014; Toepoel and Lugtig 2014; Wells, Bailey, and Link 2014).

Many of these studies also report higher breakoff rates and lower participation rates for mobile than for PC web surveys (Baker-Prewitt 2013; De Bruijne and Wijnant 2013; Mavletova 2013; Mavletova and Couper 2013; Buskirk and Andrus 2014). However, we know of few studies that have explicitly addressed ways to improve participation rates[1] in web surveys completed on mobile devices. In this paper, we explore two factors that may affect nonresponse in mobile web surveys: the type of questionnaire design (scrolling or paging) and the invitation and reminder modes (SMS or e-mail).

We conducted an experiment using a volunteer online access panel in Russia. Members of a mobile web subpanel were invited to complete the survey via mobile phone, with random assignment to experimental conditions. Below, we describe the specific hypotheses and review the relevant literature on each of these two topics, then describe the design of the study before reporting on the results of this experiment.

2. HYPOTHESES AND LITERATURE REVIEW

Scrolling vs. paging

Since there have been only a few mobile web experiments aimed at increasing participation rates, our hypotheses are based on results of mobile and PC web experiments and our assumptions. With the introduction of web surveys, there was initial interest in scrolling designs (where all survey questions are presented on a single page) versus paging designs (where the questionnaire is broken into several pages, at the extreme one for each question) (see Couper 2008, chapter 1). Experiments on PC web surveys found no differences in participation rates and breakoff rates between the two designs (Vehovar, Manfreda, and Batagelj 2000; Peytchev, Couper, McCabe, and Crawford 2006). In a large experiment that included both PC and mobile web respondents, McGeeney and Marlar (2013) found that the scrolling version of a 13-item survey produced a slightly higher participation rate and lower breakoff rate than the paging version.

1. We use the term "participation rate" rather than "response rate" to refer to the proportion of prerecruited panel members invited to a particular survey who completed that survey (see Baker et al. 2013).

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A recent follow-up survey was conducted among panelists who were nonrespondents or broke off in a large mobile web survey in a volunteer online access panel in Russia (Aboev, Cherkasskaya, Guchok, Ilyinskaya, and Prudnikov 2013). A total of 660 panelists completed the follow-up questionnaire, for an overall participation rate of 53.6 percent; this includes 504 of those who had broken off (participation rate = 64.3 percent) and 156 who were nonrespondents (participation rate = 38.1 percent). The main breakoff reason reported was technical difficulties of selecting responses (answers not immediately clickable−47 percent). Some other difficulties were related to long download times (24 percent) and slow Internet speed (16 percent).

Given that a scrolling design contains more information on the screen and may thus take longer to download on a mobile device, we can expect higher overall breakoff rates for the scrolling design. Additionally, a scrolling design can have an effect on the perception of survey burden, given that more questions are presented on the screen. A competing hypothesis is that completing a scrolling survey requires fewer web pages and may be more convenient for respondents. Given the smaller number of interactions with the server in a scrolling design, the risk of breakoff for technical reasons (i.e., dropped connections) may be lower. This suggests that earlier breakoffs may be more frequent in the scrolling design, but later breakoffs more frequent in the paging design.

Previous research has shown that a scrolling version of questionnaire survey with no or simple skip logic takes less time than a paging version, as there is almost no need to follow complex instructions to navigate from one question to another (Vehovar, Manfreda, and Batagelj 2000; Tourangeau, Couper, Galesic, and Givens 2004; McGeeney and Marlar 2013). In contrast, in surveys with more complex navigational logic, a paging design with automatic navigation takes less time to complete (Peytchev et al. 2006). Since we do not have any skip logic in our survey, we expect the scrolling version to take significantly less time than the paging version.

There is some evidence from PC web surveys that a scrolling design increases the likelihood of inadvertently missing an item, and thus results in higher rates of item nonresponse (Vehovar, Manfreda, and Batagelj 2000; Peytchev et al. 2006). We expect the same to be true for mobile web surveys.

Hypothesis 1: Lower breakoff rates, longer completion times, and lower rates of item nonresponse are expected in the paging design compared to the scrolling design.

Invitation and reminder mode: SMS vs. e-mail

If researchers have contact e-mails and mobile phone numbers for sample members, a variety of invitation methods are possible, including e-mail, SMS (short message service, or text message), MMS (multimedia message), or WAP (Wireless Application Protocol) push invitation, which automatically opens the URL on a mobile phone. Maxl, Haring, Tarkus, Altenstrasser, and

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Dolinar (2010) found that a WAP push invitation produced participation rates similar to those of SMS in mobile web surveys. MMS is used mostly for sending multimedia content (e.g., music or video) but has lower coverage compared to SMS, since not all mobile phones can receive MMS. In most cases, e-mail or SMS is used for inviting mobile web respondents.

De Bruijne and Wijnant (2013) used e-mail to invite both PC and mobile respondents. The participation rate was significantly lower for the mobile than the PC web mode (44 percent vs. 62 percent, respectively). We used SMS to invite mobile web respondents in our previous experiments (Mavletova 2013; Mavletova and Couper 2013). The participation rate in the mobile web mode was also significantly lower compared to the PC mode: 30 percent vs. 72 percent (Mavletova and Couper 2013). There is some evidence that an e-mail invitation produces higher participation rates than an SMS invitation in web surveys (Bosnjak, Neubarth, Couper, Bandilla, and Kaczmirek 2008); however, SMS significantly increases the percentage of mobile web respondents (Crawford, McClain, O'Brien, and Nelson 2013).

There are some limitations of SMS as an invitation and reminder mode in mobile web surveys. First, it leads either to immediate completion of the survey or to nonresponse (Maxl et al. 2010). SMS surveys show that almost 70 percent of the responses are received within 10 minutes (Cooke, Nielsen, and Strong 2003). The results of the survey of breakoff and nonresponse reasons in a mobile web survey in Russia discussed above (Aboev et al. 2013) also support this finding. The main reason given for not responding was a lack of mobile Internet access at the moment of receiving the SMS (26 percent). Second, the URL is displayed as text and not as a hyperlink in SMS in some mobile phones, which means that participants have to type the link manually in a mobile browser. About 17 percent of nonrespondents and 14 percent of breakoffs reported such a problem. Third, SMS offers a rather limited opportunity to convince respondents to participate in the survey. A single message using the Latin alphabet is limited to 160 characters, and a message that uses a non-Latin alphabet (e.g., Cyrillic) is limited to 70 characters. Longer messages are split into separate messages, which may increase the costs. In addition, such split messages may be delivered partly, not immediately, or not in the right order. This problem can be solved by sending MMS, but it has lower coverage. Fourth, SMS is seen as more intrusive compared to e-mail (Cooke, Nielsen, and Strong 2003). Finally, the percentage of delivered invitations, defined as the "absorption rate" (number of invitations delivered divided by the number sent; see Callegaro and DiSogra 2008), is significantly lower with SMS than with e-mail invitations (Mavletova and Couper 2013).

To test the effect of the invitation and reminder modes, we randomly assigned respondents to one of five experimental conditions, varying the mode of invitation/reminder (e-mail versus SMS) and whether the URL was included in the e-mail reminder (yes/no). This design keeps the number of contacts constant (at two), but varies the mode and content of the contacts. Given the relative

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transience of SMS, we expect that it will result in the immediate completion of the survey within several hours of receipt compared to the e-mail invitation. Individuals usually receive and check SMS right away. At the same time, it is easier to forget SMS messages that have been read. Taking into consideration the limitations of the SMS mode, we hypothesize that an e-mail invitation will lead to a higher participation rate than SMS. However, e-mail invitations or reminders are expected to result in a significant increase in the proportion of PC (as opposed to mobile) respondents.

Using both SMS and e-mail for contact with panel members is expected to increase the absorption rate and the participation rate, relative to using only one mode. Virtanen, Sirkiä, and Jokiranta (2007) found that SMS reminders increased participation rates more efficiently than postcard reminders in mail surveys. Given that the use of e-mail reminders may increase the proportion switching mode (i.e., completing the survey on a PC rather than a mobile device), we also varied whether the e-mail reminder included the URL for the survey. We expect that including the URL in the e-mail reminder will increase overall participation rates, but also increase the proportion switching modes.

Hypothesis 2.1: An SMS invitation will lead to more immediate completion of the survey within several hours; however, it will result in lower participation rates than an e-mail invitation. At the same time, e-mail invitations are expected to increase the percentage of PC web respondents.

Hypothesis 2.2: Changing the mode of the reminder will improve participation rates compared to the conditions that have the invitation and reminder in the same mode.

3. EXPERIMENTAL DESIGN

As described above, the experiment has two factors with two and five levels, respectively:

(1) Questionnaire design: scrolling versus paging. Sample persons were randomly assigned in equal proportions to the two groups. In the paging design, all questions were displayed one by one on separate pages across a total of 17 pages. In the scrolling version, all questions were presented on two pages, with nine questions on the first page and eight questions on the second page.

(2) Invitation and reminder modes: SMS versus e-mail. About one-third of the sample persons were randomly assigned to receive an e-mail invitation, while the remaining two-thirds were assigned to receive an SMS invitation. Two days later, about half of the nonrespondents received an e-mail reminder, while the other half were sent an SMS reminder. Those in the SMS invitation condition were randomly assigned to receive either an SMS reminder, an e-mail reminder with a URL, or an e-mail reminder without a URL. Those in the e-mail invitation condition were assigned to

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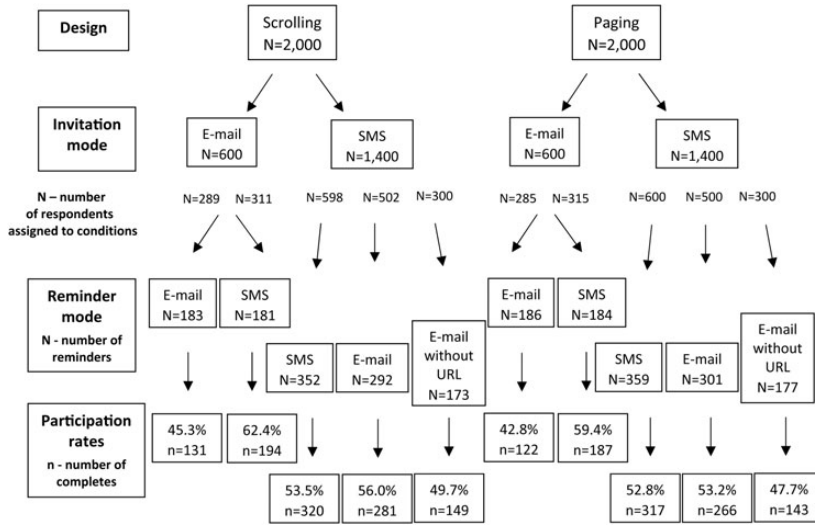

Figure 1. Experimental Design.

receive either an SMS reminder or an e-mail reminder with a URL. In total, sample persons were assigned to one of the five conditions (for more details, see figure 1):

(1) SMS invitation—SMS reminder (30 percent, $N = 1{,}198$);
(2) SMS invitation—e-mail reminder with a URL (25 percent, $N = 1{,}002$);
(3) SMS invitation—e-mail reminder without a URL (15 percent, $N = 600$);
(4) e-mail invitation—SMS reminder (15 percent, $N = 626$);
(5) e-mail invitation—e-mail reminder with a URL (15 percent, $N = 574$).

4. DATA COLLECTION AND QUESTIONNAIRE

The experiment was conducted using a volunteer online access panel managed by Online Market Intelligence (see Appendix 1 for more detailed information) from April 9 to April 29, 2013, in Russia. Members of the mobile web subpanel —that is, panelists who agreed to complete surveys via mobile devices and provided their mobile phone numbers—were randomly selected and invited to participate in the experiment. It should be noted that all mobile phone subscribers receive SMS free of charge in Russia. The length of the SMS invitation was considerably shorter than the e-mail invitation: 128 versus 390 characters,

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respectively (see invitation texts in Appendix 2). In both contact modes, sample persons were invited using a personalized URL. The survey URL was expected to be displayed as a hyperlink on most mobile phones. However, as the previous follow-up survey among mobile nonrespondents and breakoffs showed, some of the feature phones may have displayed it as text. (Feature phones are low-end cellular phones that lack the functionality of smartphones.) The e-mail invitation contained longer sentences but did not include any additional information about the survey. Both modes encouraged sample persons to complete the survey via a mobile phone.

The Unipark online research software (see http://www.unipark.com) was used to program the questionnaire for mobile browsers. Sample persons were not expected to use a mobile application to participate in the survey. Both the paging and scrolling versions had the same uniform layout. Since feature-phone owners were also invited to the survey, only radio button and check box questions were used without any complex design.

To identify the survey mode, we asked respondents to indicate the device they used to complete the survey and verified it by analyzing the user agent string information—a paradata variable that contains information about the browser and device used by the respondent (see Callegaro 2010).

Questionnaire

The survey contained 17 questions about volunteer practices. It covered volunteer activities that respondents were involved in, practices of helping other people for free, basic demographics, mobile web-usage patterns, and questions about evaluation of the survey itself (see the questionnaire in Appendix 3; see the supplementary data online screenshots for the scrolling and paging designs in the online appendix). There were no screening questions, quotas, or skip logic in the survey. None of the questions were obligatory, and respondents could skip any question. The announced length of the survey was 7 minutes.

5. RESULTS

Scrolling versus paging

A total of 4,000 invitations were sent to selected sample persons. The experiment resulted in 2,110 completed interviews: 1,075 in the scrolling and 1,035 in the paging version. The total participation rate was 52.8 percent, with no difference by the survey design (see table 1). About 74 percent of the respondents completed the survey via smartphones, 9 percent via feature phones, 14 percent via PC, and 3 percent via tablets, with no significant difference between the two versions. Exclusion of PC respondents resulted in an overall participation rate of 49.3 percent.

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Table 1. Participation Rates and Breakoff Rates: Scrolling versus Paging

	Scrolling	Paging	χ^2 (df = 1)
Number of invitations	2,000	2,000	
Number of completed interviews	1,075	1,035	
Participation rate	53.8%	51.8%	1.61 (n.s.)
Participation rate (mobile devices only)	49.9%	48.6%	0.64 (n.s.)
Number of breakoffs	94	118	
Breakoff rate	8.0%	10.2%	3.37 (n.s.)
Breakoff rate on the first page (8 questions in the scrolling version vs. 1 question in the paging version)	6.0%	3.3%	9.49**
Breakoff rate on subsequent pages	2.1%	6.9%	32.38***

***$p < 0.001$, **$p < 0.01$; all chi-square tests are two-sided.

We use an intent-to-treat approach in our analyses of the scrolling versus paging design, including all cases regardless of the device used. In general, the findings do not change when we restrict the analysis to mobile-device users only.

Contrary to expectations, the breakoff rate was higher for the paging than for the scrolling design (10.2 and 8.0 percent, respectively); however, the difference did not reach statistical significance ($p = 0.067$). Restricting the sample to those who used a mobile device to start the survey, we still find no significant differences in breakoff rate by version ($\chi^2 = 1.95$, df = 1, $p = 0.163$). As expected, the breakoff rate on the first page was significantly higher in the scrolling version (6.0 versus 3.3 percent), while it was significantly higher on subsequent pages in the paging version (6.9 versus 2.1 percent). If we compare the breakoff rate on the first page of the scrolling version (which included 8 questions) with the cumulative breakoff rate on the first eight questions in the paging version, no significant differences were found (6.0 and 7.5 percent, respectively; $\chi^2 = 2.23$, df = 1, $p = 0.138$).

The breakoff rate was significantly associated with the device used by the respondent. The highest breakoff rate was among feature-phone users (30.3 percent), and the lowest among tablet users (2.8 percent), with smartphone and PC respondents about the same (6.5 and 5.5 percent, respectively). Among smartphone and tablet users, there were also significant differences in breakoff rates by operating system ($\chi^2 = 21.35$, df = 4, $p < 0.001$), with the highest rate being for Symbian-based devices (12.8 percent) and the lowest for users of Apple iOS (2.2 percent). Comparable breakoff rates were found among Android (5.9 percent) and Windows (5.4 percent) mobile devices.

As expected, the mean completion time in the scrolling version was significantly lower than in the paging version (values were cut at the 95th percentile to remove 5 percent of those respondents who took very long times to

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Table 2. Mean Objective and Subjective Completion Times: Scrolling versus Paging

	Scrolling	Paging	*t*
N	1,020	981	
Objective mean completion time	4.52 min. (SD = 2.48 min.)	9.09 min. (SD = 12.86 min.)	−11.16*** (df = 1,999)
N	1,075	1,032	
Subjective evaluation of completion time	4.93 min. (SD = 3.33 min.)	6.63 min. (SD = 5.04 min.)	−9.16*** (df = 2,105)

***$p < 0.001$, standard deviation in parenthesis.

complete the survey). The paging design took twice as long to complete than the scrolling design: 9.1 and 4.5 minutes, respectively (see table 2). A similar difference was found after excluding PC respondents from the analysis. The subjective evaluation of the completion time reported by respondents was close to the objective average time (see table 2). In line with the results of Peytchev et al. (2006), participants reported greater satisfaction when completing the scrolling version: 70 percent of respondents in the scrolling design gave the highest rating to the survey, compared to 64 percent in the paging version ($\chi^2 = 6.60$, df = 2, $p < 0.05$).

Significantly fewer respondents reported technical problems while completing the survey in the scrolling design (18.9 percent) than in the paging version (25.8 percent; $\chi^2 = 14.56$, df = 1, $p < 0.001$). The main problem reported was the technical difficulty of selecting responses (answers not immediately clickable—8 percent), with no difference by version. Significantly more participants in the paging design reported experiencing some problems (e.g., system and connection) while completing the survey (5 percent in the paging and 2 percent in the scrolling design; $\chi^2 = 18.93$, df = 1, $p < 0.001$), but the difference is not large.

The paging design had a slightly higher percentage of respondents who missed at least one question (9.9 versus 8.4 percent), but the difference was not statistically significant (see table 3). Contrary to expectation, overall item nonresponse did not differ by survey design. In both versions, a significantly higher overall item nonresponse rate was found among feature phone users (4.5 percent), followed by smartphone users (1.6 percent), and then PC (0.5 percent) and tablet (0.3 percent) users ($F = 10.60$, df = 3, 2106, $p < 0.001$). We should, however, note that in most surveys conducted by this panel provider, respondents are required to answer all questions.

Invitation and reminder mode: SMS versus e-mail

Contrary to expectation, we found no difference in participation rates between SMS and e-mail invitations (52.7 and 52.8 percent, respectively). However,

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Table 3. Item Nonresponse: Scrolling versus Paging

	Scrolling	Paging	Statistics
N	1,075	1,035	
At least one item nonresponse (nonrespondents)	8.4%	9.9%	$\chi^2 = 1.40$ (df = 1) (n.s.)
Overall item nonresponse	1.84% (SD = 8.6%)	1.44% (SD = 7.8%)	$t = 1.12$ (df = 2,108) (n.s.)

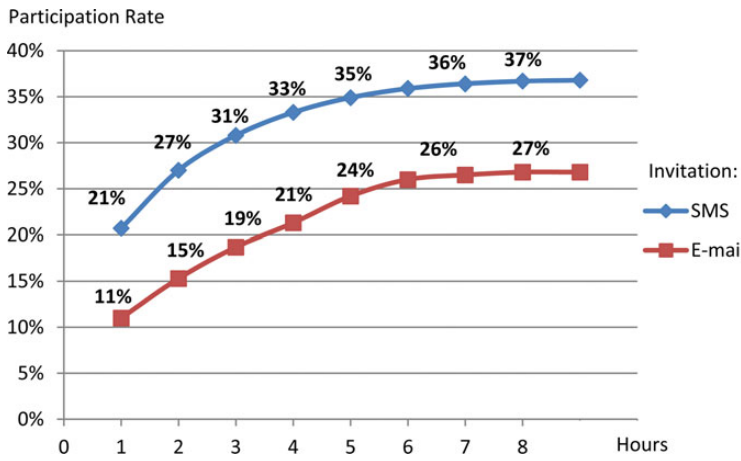

Figure 2. Progress of Participation Rate by Invitation Mode and Time of Completing the Survey: Initial Invitation SMS versus E-Mail.

SMS invitations significantly increase the breakoff rate compared to e-mail invitations (10.5 and 5.7 percent, respectively; $\chi^2 = 13.77$, df = 1, $p < 0.001$). SMS is more effective in terms of participation rates on mobile devices compared to e-mail invitations: 51.3 versus 43.7 percent ($\chi^2 = 16.31$, df = 1, $p < 0.001$). As expected, SMS works immediately: within an hour after sending the SMS invitation, the participation rate was 21 percent, while it was only 11 percent for the e-mail condition ($\chi^2 = 54.18$, df = 1, $p < 0.001$; see figure 2).

The five invitation and reminder conditions led to significantly different participation rates (see table 4). The highest participation rate was in the "e-mail invitation—SMS reminder" condition (60.9 percent), while the lowest was in the "e-mail invitation—e-mail reminder" (44.1 percent). The three other conditions had comparable participation rates, though sending an e-mail reminder without a URL was slightly but not significantly less efficient than an SMS or

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Table 4. Participation Rates by Invitation and Reminder Modes: SMS versus E-Mail

	SMS—SMS	SMS—E-mail	SMS—E-mail without URL	E-mail—SMS	E-mail—E-mail	χ^2
Number of invitations	1,198	1,002	600	626	574	
Participation rate	53.2%	54.6%	48.7%	60.9%	44.1%	39.32*** (df = 4)
Participation rate (mobile devices only)	52.4%	52.1%	47.7%	53.5%	32.8%	62.04*** (df = 4)

***$p < 0.001$.

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Table 5. Device Used to Complete Survey: SMS versus E-mail

	SMS —SMS	SMS— E-mail	SMS—E-mail without URL	E-mail —SMS	E-mail— E-mail
Mobile devices	96.9%	89.8%	96.2%	73.0%	59.7%
PC	3.1%	10.2%	3.8%	27.0%	40.3%
TOTAL	637	547	292	381	253

NOTE.— $\chi^2 = 296.33$ (df = 4), $p < 0.001$.

e-mail reminder with a URL ($\chi^2 = 5.46$, df = 2, $p = 0.065$). When excluding PC respondents, the participation rate was significantly lower only for those who received e-mail as both invitation and reminder. The other four conditions produced comparable participation rates, ranging from 47.7 to 53.5 percent.

In line with our expectations, an e-mail invitation resulted in significantly more respondents who completed the survey via PC rather than mobile device (see table 5). About 32 percent of the respondents who were initially invited by e-mail completed the survey via PC, compared to 10 percent in the SMS condition. The lowest rates of PC participants were found among those who were invited by SMS and reminded either by SMS (3.1 percent) or e-mail without a URL (3.8 percent).

The probability of completing the survey via a mobile device is significantly associated with the frequency of mobile web usage. Among those who used a mobile device to complete the survey, 79.3 percent reported using mobile web every day, while among PC respondents 56.0 percent reported doing so ($\chi^2 = 74.39$, df = 1, $p < 0.001$).

6. DISCUSSION AND CONCLUSION

There are two major findings in this paper. First, a scrolling design appears to make the process of completing the survey easier and more engaging for mobile web respondents. Specifically, it significantly decreases the completion time, produces fewer reported technical problems, and increases the reported level of satisfaction among respondents.

Second, taking into consideration both participation rates and the percentage of PC respondents, an SMS invitation is more efficient compared to e-mail in encouraging to survey completion via a mobile device. If researchers want to increase the use of mobile web, then SMS should be considered as an invitation mode.

The generalizability of our results is limited. First, the sample was restricted to members of a volunteer online access panel who participate in web surveys on a regular basis. Second, the experiment was conducted in Russia, which has relatively low mobile Internet penetration (30 percent, versus 50 percent in

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the United States) (see Antoun and Couper 2013; TNS Russia 2013) and mobile Internet connection speed (e.g., 16 times slower than in the United States; see Cisco Report 2013). Thus, the results in European countries and the United States may differ from those presented in our paper, possibly even eliminating the differences we found between scrolling and paging design in mobile web surveys. Third, the survey was short and did not have any skip logic. The results could be different in longer and more complex questionnaires with skips. Fourth, the number of items presented on the one page in a scrolling version is also an important factor affecting breakoff rate. We did not test the extreme with all 17 items on a single page. Finally, rapid changes in mobile technologies may diminish the differences we found.

Despite these limitations, our experiment suggests that what is known about designing web surveys for PC users may not always apply to mobile web users, and that the optimal invitation mode may not be the same across devices. We encourage others to explore these differences further in other settings.

Supplementary Data

Supplementary data are freely available online at http://www.oxfordjournals.org/our_journals/jssam.

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Appendix 1

The online volunteer panel provider, Online Market Intelligence (OMI, http://omirussia.ru/en), is the only panel provider in Russia certified with the ISO 20252 (Market, Opinion, and Social Research) and ISO 26362 (Access Panels in Market, Opinion, and Social Research) standards by the CASRO Institute for Research Quality.

The OMI consumer panel has more than 450,000 panelists in Russia. They recruit panelists from different sources and aim to represent regular Internet users in Russia. However, the panel is not representative. The age and gender distribution in the panel are similar to the distribution of Internet users in Russia. OMI recruits from popular websites, e-mail providers, search engines, social networks, banner networks, and partners' databases. Participation rate is on average 30–40 percent, and the breakoff rate is on average 2–5 percent.

For more details, see OMI answers to ESOMAR's *28 Questions to Help Research Buyers of Online Samples* (http://omirussia.ru/en/online_panels/panel_book).

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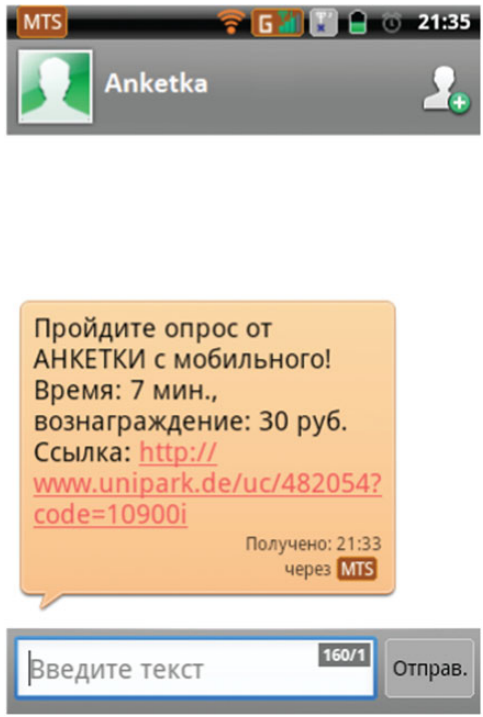
Appendix 2: SMS and E-Mail Invitations

Figure 1. SMS invitation

Russian:



English translation:

Sender: Anketka[2]

Fill out an Anketka questionnaire via mobile phone! Time: 7 min. Incentive: 30. URL: http://www.unipark.de/uc/482054?code=10900i.

2. Anketka is the brand name of the OMI panel.

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Figure 2. E-mail invitation

Russian:

У нас для Вас есть новая МОБИЛЬНАЯ анкетка!

ВНИМАНИЕ! Мы просим Вас заполнить данную анкету с Вашего мобильного телефона.

Заполнение опроса займет около 7 мин.

За участие Вы получите следующую сумму: 30

Вознаграждение будет начислено лишь в том случае, если опрос будет заполнен с мобильного телефона.

К опросу с мобильного устройства можно перейти по следующей ссылке:

http://www.unipark.de/uc/482054?code=10900i

С наилучшими пожеланиями,
Anketka.ru

English translation:

We have a new MOBILE questionnaire for you!

ATTENTION! We ask you to fill out the questionnaire via mobile phone.

The survey takes about 7 min.

You will receive the following incentive: 30

The incentive will be rewarded only if you complete it via mobile phone.

The survey can be accessed via mobile phone by clicking on the following link:

http://www.unipark.de/uc/482054?code=10900i

Best Regards,
Anketka.ru

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Appendix 3: Questionnaire

(1) Please indicate your gender.
- Male
- Female

(2) Please indicate your age group.
- Up to 16
- 17–24
- 25–34
- 35–44
- 45–55
- Older than 55

(3) Among those people you know, do you think they are willing to help other people or not?
- Yes, they are willing.
- No, they are not willing.

(4) Did you have a chance to help other people in the past 12 months? Check all that apply.
- With money
- With products
- By providing consulting, delivering lectures, giving lessons
- By solving problems with official authorities
- Being a donor
- Seeing to the children
- Providing aged-care services
- Providing legal assistance
- Providing assistance with finding a job
- Helping with transport
- None of the above

(5) Were you involved in some voluntary activities in the past 12 months or not? Check all that apply.
- Organized some social events (charity, leisure, etc.)
- Raised funds
- Helped non-profit organizations
- Participated in public discussions, conferences (incl. by Internet)
- Helped in an emergency (fire, health, etc.).
- Participated in a volunteer cleanup and landscaping

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- Tended animals in shelters
- Participated in the preservation of natural objects
- Collected signatures supporting a politician or political party
- None of the above

(6) Are there any people among your acquaintances who are involved in some voluntary activities or not?
- Yes
- No
- Difficult to answer

(7) How long have you used the Internet on your cell phone?
- Less than 6 months
- 6 months–1 year
- 1–2 years
- 2–3 years
- More than 3 years

(8) How often, on average, have you used the Internet on your cell phone over the past 3 months?
- Every day
- 2–4 times a week
- Once a week
- 1–2 times a month
- I don't use it regularly.
- Difficult to answer

(9) Which tariff do you use to pay for the Internet on your cell phone?
- I pay for time and traffic.
- I pay a fixed fee for using Internet.
- It is included in the services of my mobile operator.
- I use it only in Wi-Fi areas (Hotspots).
- Other (please specify)_____
- Difficult to answer

(10) What type of Internet connection are you using to fill out this questionnaire?
- Regular cellular connection (2G or GSM)
- 3G cellular connection
- Wi-Fi
- Other (please specify)_____
- Difficult to answer

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(11) Where are you filling out this questionnaire?
- Home
- Office
- College/institute/university/school
- Cafe/bar/restaurant
- Transport
- Other (please specify)_____

(12) How satisfied are you with the Internet speed?
- Completely satisfied
- Satisfied
- Not satisfied
- Completely not satisfied

(13) Please evaluate how easy or difficult it was to fill out this questionnaire via mobile device.
- Very easy
- Rather easy
- Rather difficult
- Very difficult

(14) Please evaluate how much you like or don't like to fill out this questionnaire.
- I like it very much.
- I rather like it.
- I rather do not like it.
- I do not like it at all.

(15) Which type of device are you using to complete this survey?
- Feature phone with a small display
- Feature phone with a large display
- Smartphone without touchscreen
- Smartphone with touchscreen
- Tablet
- PC
- Difficult to answer

(16) Did you have any technical problems while completing the survey?
- No problems
- Not clickable link in SMS. I had to type the URL.
- The questionnaire was not completely downloaded/downloaded very slowly.

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- There was an error while opening the link.
- Problems with the Internet speed
- Could not select the answer (response not immediately clickable)
- The "Next" button was not always visible.
- Some errors while completing the survey (Internet, system, etc.)
- Other

(17) Please estimate how much time you took to fill out the questionnaire. (in minutes)

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