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Response Quality Indicators: Internet Use and Paradata Questionnaire

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Abstract

This is a technical report on response quality indicators collected with paradata in a typical web survey, which was conducted in 2020 in Slovenia with 4,000 target complete responses and in Israel with 1,200 target complete responses. Question topics included Internet use, online shopping, and online privacy. Respondents were randomly assigned to five experimental cells that defined how the grids were displayed: standard grid, item-by-item scrolling, item-by-item unfolding, horizontal scrolling, and item-by-item paging. This report provides a summary of the results by experimental group, as well as descriptive statistics for all indicators of response quality. The analysis is limited to data for Slovenia, with the exception of some comparisons by language (i.e., Slovenian, Hebrew, and Arabic). Response quality indicators comprise breakoffs, missing and nonsubstantive answers, respondent usability, response times, satisficing, extreme responding, midpoint responding, self-reported effort, self-reported burden, self-reported multitasking, alert prompts, open-ended responses, and trap items.

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2.1 Description of fielding

The survey questionnaire was prepared and implemented by the Centre for Social Informatics (CSI) and The Samuel Neaman Institute for National Policy Research (SNI), Technion-Israel Institute of Technology, Israel. The survey topic was related to Internet use, online shopping, and online privacy. The questionnaire was deployed in the Slovenian, Hebrew, and Arabic languages. Overall, 42 questions were included in all three languages, while each language contained a small number of additional questions (specifically, device use in Slovenia and additional quotas in Israel). The questionnaire contained about 250 items; of the 42 questions, there were 13 grids (counting only those with 3 items or more). The most complex grid was the 20-item standard Big 5 inventory.

The fielding in Slovenia was conducted using the Valicon access panel with 4,000 target complete responses randomly assigned to five experimental cells. The experimental cells differed in the way the grids were displayed (see the online demo). The fielding in Israel was conducted using the iPanel access panel with 1,200 target complete responses; of those, 960 were in Hebrew, and 240 were in Arabic. In the Hebrew-language version, respondents were randomly assigned to two experimental cells (standard grid vs. horizontal scrolling matrix [HSM]), while the Arabic-language version did not use any experimental cells.

Responses were collected in the following periods in 2020: January 20–February 9 (Slovenian), January 28–February 10 (Hebrew), and January 28–February 16 (Arabic).

2.2 Methodology note

Respondents who responded to the questionnaire using tables were excluded from all analyses (a total of 127 units used tables). At present, the data are not weighted for smartphone respondents. This means that some effects shown in the analyses could be the result of social demographics (e.g., young people more actively use social networking services and online shopping).

2.3 Additional resources

- Questionnaire preview (first experimental group only, 1KA software) >>
- Questionnaire preview (first experimental group only, Word) >>
- Demo examples of five experimental groups (1KA software) >>
- Frequency analyses for all questions (Questions appearing in all languages >>, additional Slovenian-only questions >>)
- Summary analyses for all questions (Questions appearing in all languages >>, additional Slovenian-only questions >>)
- Tableau.com visualizations (by Yael Albo) >>

3 Summary of findings[1]

Basic descriptive statistics: Among the 4,751 Slovenian respondents, 4040 finished the survey. The percentage of PC respondents (53 %) was similar to the percentage of smartphone users (47 %). The percentage of finished surveys was higher for PC users (89 %) compared to smartphones (81 %).

Respondents were randomly distributed across five experimental cells, which defined how grids were displayed: 1) Standard grid, 2) Item-by-item scrolling ("IBI scroll"), 3) Item-by-item unfolding ("IBI unfold"), 4) Horizontal scrolling matrix ("HSM"), and 5) Item-by-item paging ("IBI paging"). Slightly fewer respondents (1–4 % point difference) finished the survey in the IBI paging, HSM, and IBI scroll conditions.

Survey-level breakoff indicators: The Total Breakoff Rate (TBR) was 15 %. Further decomposition shows a Gross Questionnaire Breakoff Rate (GQBR) of 11 %, and an Introduction Breakoff Rate (IBR) of 4 %.

Missing and nonsubstantive answers: On average, respondents were exposed to 71 % of the items in the questionnaire. Among these items they were exposed to, the respondents provided valid responses to 92 % of the items on average; item nonresponse was 1 % and nonsubstantive answers represented 8 % of the responses (the total does not match 100 % due to rounding error).

[1] Holding down CTRL and clicking on a paragraph of the summary takes you to the appropriate section of the full results.

Respondent usability indicators: Overall, the Unit-level Response Rate (URR) is 0.89, and the mean Unit-level Total Nonresponse (UTN) is 0.12. The URR of smartphone respondents was lower by 5 % points compared to PC users. Among the 5 experimental cells, IBI unfold has the best mean URR (0.90), while HSM and IBI paging performed the worst (mean of 0.88).

Respondent usability indicators in grid vs. non-grid questions: On average, respondents in grids were exposed to fewer items (66 %) compared to non-grid questions (82 % of items) due to IF logic (branching). Among the exposed items, the mean percentage of valid answers in grids equaled 97%, while in non-grid questions this was 85 %. On average, more nonsubstantive answers were provided in non-grid questions (15 %) compared to grids (3 %).

Timing: Basic timing analysis suggests that respondents multitasked and took breaks. On average, PC respondents took longer (26.6 minutes) than smartphone users (25.8 minutes). This could perhaps be explained by the fact that it is easier to multitask on the PC. Furthermore, it is easier to take a break from using the PC, as smartphone users may try to complete their tasks in one sitting. The difference between PCs and smartphones was the largest in the IBI scroll and IBI unfold groups, where smartphones were on average faster by 1–2 minutes. In the HSM group, however, smartphones actually took a bit longer than PC respondents.

Nondifferentiation and straightlining: Overall, the differences in straightlining are more pronounced in grids where the scales relate to factual issues (see also Table 8.1) Across all grids, nondifferentiation was worst in the standard grid experimental cell, where the mean standard deviation of the respondent's answers was 0.83. On the other hand, the mean SD was highest for IBI paging (0.89), followed by HSM (0.88). The percentage of straightliners (units with SD of 0) was again worst in the standard grid group (11 %) and best in the paging group (6 %). Comparing the devices suggests that smartphones perform slightly better in terms of nondifferentiation, but about the same as PC respondents when it comes to straightlining (extreme nondifferentiation).

Extreme responses: Respondents in the standard grid experimental condition performed the worst in the overall mean percentage of extreme responses (36 %), followed by IBI scroll and IBI unfold (35%), and then by HSM and IBI paging (34 %). Smartphone respondents provided a higher mean percentage of extreme responses in grids (36 %) compared to PC respondents (34 %).

Midpoint responses: The mean percentage of midpoint responses is slightly higher on PC (24 %) compared to smartphones (23 %). No noticeable differences seem to exist between the five experimental groups.

Nondifferentiation and straightlining by URR: Comparing all respondents with only those who had zero item nonresponse (URR=1) reveals basically overall difference between the devices. There are some minor differences between the experimental groups; in the standard grid condition, the mean SD is lower for all units (0.83) compared to only those with an URR of 1 (0.85). Similarly, the mean percentage of straightliners in the standard grid group is higher among all units (11 %) than among those with an URR of 1 (9 %).

Extreme responses by URR: When averaging all grids there are no differences between the devices among all respondents vs. only those with an URR of 1. There are some minor differences when looking at the experimental cells. Among respondents with an URR of 1, there are slightly more extreme responses for the standard grid and HSM (difference of 1 % point).

Midpoint responses by URR: There are no differences between the devices among all respondents vs. only those with an URR of 1 when averaging all grids. Among the experimental groups, only the IBI unfold shows an overall difference, as the mean percentage of midpoint responses is lower among all respondents (23 %) compared to those with an URR of 1 (24 %).

Nondifferentiation and straightlining by language: Nondifferentiation is worst for the Slovenian respondents (mean SD = 0.85), followed by Arabic (0.89) and Hebrew respondents (0.95). The mean percentage of straightliners worst for the Arabic respondents (10 %), followed by Slovenian (8 %) and Hebrew respondents (5 %). However, if only the standard grid cell is compared, the Slovenian respondents are actually the worst performing (11 %), followed by Arabic (10 %), and Hebrew (5 %) respondents). There is also more dissimilarity in nondifferentiation between the devices among the Hebrew respondents compared to the other two languages.

Extreme and midpoint responses by language: The mean percentage of extreme responses is highest among the Arabic respondents (41 %), followed by Hebrew (36 %) and Slovenian respondents (35 %). The highest dissimilarity between devices is for the Arabic respondents. The mean percentage of midpoint responses in the highest among the Slovenian respondents (24 %), followed by Hebrew (22 %) and Arabic respondents (20 %).

Self-reported effort: Smartphone respondents reported higher mean effort (3.55) than PC respondents (4.32). The difference between the devices was the lowest in the standard grid group and the highest in the IBI unfold experimental group. Overall, respondents in the IBI paging and HSM experimental groups reported the highest mean effort.

Comparing technical statuses shows that higher self-reported effort results in fewer breakoffs, but the difference is not statistically significant. The analysis of missing data indicators shows that higher self-reported effort results in a lower unit non-applicability level (UIL, β=-0.16).

There seem to be no consistent differences in mean completion time according to the level of self-reported effort.

There seem to be no differences in satisficing in relation to self-reported effort. On the other hand, respondents who reported higher effort seem to have a slightly lower percentage of midpoint responses and a slightly higher percentage of extreme responses.

Self-reported burden: Smartphone respondents reported slightly higher mean burden (1.85) than PC respondents (1.81). The difference between the devices was the lowest in the IBI scroll group and the highest in the IBI unfold experimental group. Overall, respondents in the IBI paging group reported the highest mean burden.

Technical statuses cannot be compared by self-reported burden, as respondents who found survey burdensome likely quit before answering this question. The analysis of missing data indicators shows that higher self-reported burden results in a lower unit non-applicability level (UIL, β=-0.15).

Higher self-reported burden results in longer completion times (β = 0.1); respondents with the highest burden take almost 10 minutes longer compared to the respondents reporting the lowest burden.

The highest levels of self-reported burden show more nondifferentiation, straightlining and extreme responses; however, these results are overall inconsistent due to the low number of units reporting high levels of burden.

Self-reported multitasking: The percentage of respondents reporting multitasking (MT) is about the same on PC and smartphone (27–28 %). The highest percentage of reported MT is in the paging group (30 %), and the lowest in the IBI unfold group (25 %). The largest difference between the devices in the percentage of reported MT is in the HSM experimental group.

Completes report 0.43 mean multitasking activities, while for partials the mean is 0.50. Comparing the means of missing data indicators by whether the respondents multitasked or not reveals no differences, except for UIL. On the other hand, linear regression modeling reveals that an increase in the mean number of multitasking activities contributes to an improvement in various missing data indicators.

Self-reported multitasking results in longer completion times (31.1 minutes) vs. no reported multitasking (24.5 minutes). Furthermore, each additional reported multitasking activity increases the completion time by 4.2 minutes on average (linear regression modeling).

A higher mean reported number of multitasking activities results in slightly less nondifferentiation and straightlining.

Concurrent vs. sequential multitasking: A slightly higher percentage of PC respondents (19%) reported at least one type of concurrent multitasking compared to smartphone respondents (18%). There seems to be no overall difference between the devices for sequential multitasking. There are, however, some device differences within experimental cells. For example, for the standard grid group, more smartphone respondents reported at least one type of sequential multitasking, while more PC respondents reported at least one type of concurrent multitasking.

There seems to be no difference in means between the types of multitasking on missing data indicators.

Comparing multitasking type by timing shows that the mean completion time of those who reported sequential MT was 9 minutes longer compared to those who did not report sequential MT. In contrast, those who reported concurrent MT had 5 minute longer mean completion time vs. those who did not report concurrent MT.

Alerts: On average, more alerts were activated by smartphone respondents (2.1) compared to PC (1.1). By far the highest mean number of alerts was in the HSM experimental group (4.7 vs. the overall mean of 1.55). The difference between the devices was by far the most dramatic in the HSM group (7.1 for smartphone, 2.7 for PC).

The number of activated alerts does not seem to affect completion time.

Regression modeling shows that a higher number of alerts affects satisficing indicators. Namely, a higher number of displayed alerts results in more nondifferentiation, more straightlining, fewer extreme responses, and more midpoint responses.

Open-ended responses: The mean number of open-ended responses provided was higher on smartphone (0.09) than PC (0.06). The difference in length of open-ended answers was small overall across the devices. However, examining the experimental groups revealed some differences. Namely, the IBI unfold group's mean open-ended length was longer on smartphone by 1.8 characters, while in the HSM group the PC group's mean length was longer by 1.4 characters.

Respondents who provided more open-ended answers took longer, on average.

The mean percentage of answered open-ended items in higher on PC (8%) than smartphone (6%). This difference is influenced by panel provider's follow-up open-ended question (see Sections 11.2.1–11.2.6).

For item O5l (SNS use) the percentage of answered open-ended items was higher on smartphones compared to PCs in all experimental cells, except in the HSM (PC 4.4%, SP 1.8%).

For item O26e (country of birth) the percentage of answered open-ended items was again higher on smartphones, with the exception of the IBI unfold experimental cell.

For item O38h (location of respondent) the percentage of answered open-ended items was profoundly higher on smartphones in all experimental cells (1.6% SP vs. 0.6% PC overall).

For item O42p (multitasking) the percentage of answered open-ended items was profoundly higher on PCs than on smartphones, which is to be expected due to easier multitasking on the PC.

For item SIdevice2d (other respondent's device) the percentage of answered open-ended items was typically higher on smartphones than on PCs.

The panels' follow-up survey experience question was overall answered by 40% of PC respondents ant 23.5% of smartphone respondents.

Analysis of the mean percentage of respondents that answered at least one open-ended item shows a difference between whether half half-open and open questions are considered. For the five open-ended text-entry items that are part of half-open questions, the mean percentage of respondents answering at least one item is higher on smartphones (7%) vs PCs (5%). If the mean percentage is calculated by considering the panel provider's open-ended item that was part of an open-ended question, then the mean percentage of respondents answering at least one item is higher on PC (43%) than on smartphone (29%).

Trap items. Respondents in the IBI unfold and IBI paging performed best in the first stage of the trap items (whether fictitious sites were visited), but the differences between the cells are not dramatic. Overall, PC respondents dealt with trap items more successfully than smartphone respondents; 94% and 97% never visited BigDeal and iGoodDeal on PC, respectively, vs. 93% and 95% on smartphone.

4 Basic descriptive analysis

4.1 Experimental cell summary

Table 4.1: Frequency distribution of experimental cell

Status	Frequency	Valid %	Cumulative %
Standard	959	20.2	20.2
IBI scroll	954	20.1	40.3
IBI unfold	942	19.8	60.1
HSM	940	19.8	79.9
IBI paging	956	20.1	100
Total	4751	100,0	

4.2 Device summary

Table 4.2: Frequency distribution of devices

Status	Frequency	Valid %	Cumulative %
PC	2516	53.0	53.0
Phone	2235	47.0	100.0
Total	4751	100.0	

4.3 Technical statuses

Table 4.3: Frequency distribution of technical statuses

Status	Frequency	Valid %	Cumulative %
3-Intro click	146	3.1	3.1
4-Survey click	50	1.1	4.1
5-Partial	515	10.8	15.0
(of those 5L-Empty partial)	26	---	---
6-Complete	4040	85.0	100.0
Total	4751	100.0	

Table 4.4: Statuses by experimental cells (Chi^2=14.331, p=0.280)

Status	Experimental cell					Total
	Standard	IBI scroll	IBI unfold	HSM	IBI paging	
3-Intro click	2.5%	2.8%	3.3%	3.1%	3.7%	3.1%
4-Survey click	1.4%	1.3%	0.6%	1.0%	1.0%	1.1%
5-Partial	9.8%	10.6%	9.4%	11.2%	13.2%	10.8%
6-Complete	86.3%	**85.3%**	86.6%	**84.8%**	**82.1%**	85.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4.5: Statuses by device type (Chi^2=68.450, p=0.000)

Status	Device		Total
	PC	Phone	
3-Intro click	2.5%	3.7%	3.1%
4-Survey click	1.0%	1.1%	1.1%
5-Partial	7.6%	14.5%	10.8%
6-Complete	88.9%	**80.7%**	85.0%
	100,0%	100,0%	100,0%

Basic descriptive statistics: Among the 4,751 Slovenian respondents, 4040 finished the survey. The percentage of PC respondents (53 %) was similar to the percentage of smartphone users (47 %). The percentage of finished surveys was higher for PC users (89 %) compared to smartphones (81 %).

Respondents were randomly distributed across five experimental cells, which defined how grids were displayed: 1) Standard grid, 2) Item-by-item scrolling ("IBI scroll"), 3) Item-by-item unfolding ("IBI unfold"), 4) Horizontal scrolling matrix ("HSM"), and 5) Item-by-item paging ("IBI paging"). Slightly fewer respondents (1–4 % point difference) finished the survey in the IBI paging, HSM, and IBI scroll conditions.

Table 4.6: Statuses by device and experimental cell

Experimental cell	Status	Device		Total
		PC	Phone	
Standard	3-Intro click	1,4%	3,7%	2,5%
	4-Survey click	1,8%	0,9%	1,4%
	5-Partial	7,8%	12,0%	9,8%
	6-Complete	89,0%	83,5%	86,3%
	Total	100,0%	100,0%	100,0%
IBI scroll	3-Intro click	2,3%	3,4%	2,8%
	4-Survey click	1,2%	1,4%	1,3%
	5-Partial	8,3%	13,2%	10,6%
	6-Complete	88,2%	82,0%	85,3%
	Total	100,0%	100,0%	100,0%
IBI unfold	3-Intro click	2,9%	3,7%	3,3%
	4-Survey click	0,8%	0,5%	0,6%
	5-Partial	6,5%	13,0%	9,4%
	6-Complete	89,8%	82,9%	86,6%
	Total	100,0%	100,0%	100,0%
HSM	3-Intro click	2,5%	3,8%	3,1%
	4-Survey click	0,2%	1,8%	1,0%
	5-Partial	7,6%	15,0%	11,2%
	6-Complete	89,8%	79,4%	84,8%
	Total	100,0%	100,0%	100,0%
IBI paging	3-Intro click	3,4%	4,0%	3,7%
	4-Survey click	1,2%	0,9%	1,0%
	5-Partial	7,6%	19,4%	13,2%
	6-Complete	87,9%	75,7%	82,1%
	Total	100,0%	100,0%	100,0%
Total	3-Intro click	2,5%	3,7%	3,1%
	4-Survey click	1,0%	1,1%	1,1%
	5-Partial	7,6%	14,5%	10,8%
	6-Complete	88,9%	80,7%	85,0%
	Total	100,0%	100,0%	100,0%

4.4 Survey-level breakoff indicators

Table 4.7: Survey-level breakoff indicators

Survey-level breakoff indicator	Survey-level value	N
Introduction breakoff units (survey level)	196	4751
Questionnaire breakoff units (survey level)	515	4751
Units started the questionnaire (survey level)	4751	4751
IBR (Introduction Breakoff Rate)	0,04	4751
NQBR (Net Questionnaire Breakoff Rate)	0,11	4751
GQBR (Gross Questionnaire Breakoff Rate)	0,11	4751
TBR (Total Breakoff Rate)	0,15	4751

Survey-level breakoff indicators: The Total Breakoff Rate (TBR) was 15 %. Further decomposition shows a Gross Questionnaire Breakoff Rate (GQBR) of 11 %, and an Introduction Breakoff Rate (IBR) of 4 %.

5 Usable respondents (all questions)

5.1 Summary of missing and nonsubstantive answers

Table 5.1: Descriptive statistics for missing and nonsubstantive answers

Indicator	Mean	St. dev.	25p	50p	75p	Min.	Max.	N
-1 %	**0.00**	0.01	0.00	**0.00**	0.00	0.00	0.30	4,751
-2 %	**0.17**	0.11	0.13	**0.15**	0.18	0.00	0.47	4,751
-3 %	**0.07**	0.22	0.00	**0.00**	0.00	0.00	1.00	4,751
-4 %	**0.00**	0.00	0.00	**0.00**	0.00	0.00	0.00	4,751
-5 %	**0.05**	0.21	0.00	**0.00**	0.00	0.00	1.00	4,751
nonsubstantive % (all var.)	**0.06**	0.04	0.01	**0.06**	0.08	0.00	0.17	4,751
exposed %	**0.71**	0.25	0.60	**0.83**	0.86	0.00	0.99	4,751
exposed valid %	**0.92**	0.06	0.89	**0.92**	0.97	0.39	1.00	4,528
exposed item nonresponse %	**0.01**	0.03	0.00	**0.00**	0.00	0.00	0.53	4,528
exposed nonsubstantive %	**0.08**	0.06	0.02	**0.08**	0.11	0.00	0.34	4,528

Table 5.2: Mean values for missing and nonsubstantive answers by experimental cell

Indicator (MEAN)	Standard	IBI scroll	IBI unfold	HSM	IBI paging	Total
-1 %	0.00	0.00	0.00	0.01	0.00	0.00
-2 %	0.17	0.17	0.18	0.18	0.17	0.17
-3 %	0.07	0.07	0.06	0.07	0.07	0.07
-4 %	0.00	0.00	0.00	0.00	0.00	0.00
-5 %	0.04	0.05	0.04	0.05	0.06	0.05
nonsubstantive % (all var.)	0.06	0.05	0.06	0.06	0.05	0.06
exposed %	0.72	0.72	0.72	0.71	0.70	0.71
exposed valid %	0.91	0.92	0.92	0.91	0.92	0.92
exposed item nonresponse %	0.00	0.00	0.00	0.01	0.00	0.01
exposed nonsubstantive %	0.08	0.08	0.08	0.08	0.07	0.08

Table 5.3: Median values for missing and nonsubstantive answers by experimental cell

Indicator (MEDIAN)	Standard	IBI scroll	IBI unfold	HSM	IBI paging	Total
-1 %	0.00	0.00	0.00	0.00	0.00	0.00
-2 %	0.15	0.15	0.15	0.15	0.15	0.15
-3 %	0.00	0.00	0.00	0.00	0.00	0.00
-4 %	0.00	0.00	0.00	0.00	0.00	0.00
-5 %	0.00	0.00	0.00	0.00	0.00	0.00
nonsubstantive % (all var.)	0.07	0.06	0.06	0.07	0.06	0.06
exposed %	0.83	0.83	0.83	0.83	0.84	0.83
exposed valid %	0.91	0.92	0.92	0.91	0.92	0.92
exposed item nonresponse %	0.00	0.00	0.00	0.00	0.00	0.00
exposed nonsubstantive %	0.08	0.08	0.08	0.08	0.08	0.08

Table 5.4: Difference (PC-phone) in mean values for missing and nonsubstantive answers by experimental cell

Indicator (mean PC – mean phone)	Standard	IBI scroll	IBI unfold	HSM	IBI paging	Total
-1 %	0.00	0.00	0.00	-0.01	0.00	0.00
-2 %	0.01	0.01	0.02	0.02	0.02	0.02
-3 %	-0.02	-0.02	-0.03	-0.04	-0.07	-0.04
-4 %	0.00	0.00	0.00	0.00	0.00	0.00
-5 %	-0.01	-0.01	0.00	-0.03	-0.01	-0.01
nonsubstantive % (all var.)	0.01	0.01	0.01	0.02	0.01	0.01
exposed %	0.02	0.02	0.02	0.05	0.06	0.03
exposed valid %	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01
exposed item nonresponse %	0.00	0.00	0.00	-0.01	0.00	0.00
exposed nonsubstantive %	0.01	0.01	0.02	0.02	0.01	0.01

Missing and nonsubstantive answers: On average, respondents were exposed to 71 % of the items in the questionnaire. Among these items they were exposed to, the respondents provided valid responses to 92 % of the items on average; item nonresponse was 1 % and nonsubstantive answers represented 8 % of the responses (the total does not match 100 % due to rounding error). There does not seem to be any meaningful differences between the 5 experimental cells for these indicators. When the device is considered, however, there is slightly more nonsubstantive answers among exposed items on PC (by 1–2 % points across all 5 cells).

5.2 Respondent usability indicators

Table 5.5: Descriptive statistics for respondent usability indicators

Indicator	Mean	St. dev.	25p	50p	75p	Min.	Max.	N
UIN (Unit-level Item Nonresponse)	**0.01**	0.03	0.00	**0.00**	0.00	0.00	0.53	4528
UBL (Breakoff Unit Level)	**0.11**	0.28	0.00	**0.00**	0.00	0.00	1.00	4751
UBR (Unit-level Breakoff Rate)	**0.11**	0.29	0.00	**0.00**	0.01	0.00	1.00	4725
UTN (Unit-level Total Nonresponse)	**0.12**	0.29	0.00	**0.00**	0.01	0.00	1.00	4725
URR (Unit-level Response Rate)	**0.88**	0.29	0.99	**1.00**	1.00	0.00	1.00	4725
UCL (Unit Completeness Level)	**0.89**	0.29	0.99	**1.00**	1.00	0.00	1.00	4725
UIL (Unit Non-Applicability Level)	**0.19**	0.11	0.13	**0.16**	0.19	0.00	0.72	4528
UAQ (Unit Additional Questions)	**0.00**	0.00	0.00	**0.00**	0.00	0.00	0.00	4751

Table 5.6: "PC minus phone" for respondent usability indicators

Indicator	Mean		Median		St. dev.	
	PC–phone	Total	**PC–phone**	Total	PC	Phone
UIN (Unit-level Item Nonresponse)	**0.00**	0.01	**0.00**	0.00	0.03	0.03
UBL (Breakoff Unit Level)	**-0.05**	0.11	**0.00**	0.00	0.26	0.31
UML (Unit Missing-data Level)	**-0.05**	0.11	**0.00**	0.00	0.26	0.31
UTN (Unit-level Total Nonresponse)	**-0.05**	0.12	**0.00**	0.00	0.26	0.31
URR (Unit-level Response Rate)	**0.05**	0.88	**0.00**	1.00	0.26	0.31
UCL (Unit Completeness Level)	**0.05**	0.89	**0.00**	1.00	0.26	0.31
UIL (Unit Non-Applicability Level)	**0.01**	0.19	**0.01**	0.16	0.11	0.11
UAQ (Unit Additional Questions)	**0.00**	0.00	**0.00**	0.00	0.00	0.00

Table 5.7: Mean values for respondent usability indicators by experimental cell

Indicator (MEAN)	Std.	IBI scroll	IBI unfold	HSM	IBI paging	Total
UIN (Unit-level Item Nonresponse)	0.00	0.00	0.00	**0.01**	0.00	0.01
UBL (Breakoff Unit Level)	0.11	0.11	0.10	0.11	**0.12**	0.11
UML (Unit Missing-data Level)	0.11	0.11	0.10	**0.12**	**0.12**	0.11
UTN (Unit-level Total Nonresponse)	0.11	0.11	0.10	**0.13**	**0.12**	0.12
URR (Unit-level Response Rate)	0.89	0.89	0.90	**0.87**	0.88	0.88
UCL (Unit Completeness Level)	0.89	0.89	**0.90**	0.88	0.88	0.89
UIL (Unit Non-Applicability Level)	0.19	0.19	0.19	0.19	0.19	0.19
UAQ (Unit Additional Questions)	0.00	0.00	0.00	0.00	0.00	0.00

Table 5.8: Median values for respondent usability indicators by experimental cell

Indicator (MEDIAN)	Std.	IBI scroll	IBI unfold	HSM	IBI paging	Total
UIN (Unit-level Item Nonresponse)	0.00	0.00	0.00	0.00	0.00	0.00
UBL (Breakoff Unit Level)	0.00	0.00	0.00	0.00	0.00	0.00
UML (Unit Missing-data Level)	0.00	0.00	0.00	0.00	0.00	0.00
UTN (Unit-level Total Nonresponse)	0.00	0.00	0.00	**0.01**	0.00	0.00
URR (Unit-level Response Rate)	1.00	1.00	1.00	**0.99**	1.00	1.00
UCL (Unit Completeness Level)	1.00	1.00	1.00	1.00	1.00	1.00
UIL (Unit Non-Applicability Level)	0.16	0.16	0.16	0.16	0.15	0.16
UAQ (Unit Additional Questions)	0.00	0.00	0.00	0.00	0.00	0.00

Respondent usability indicators: Overall, the Unit-level Response Rate (URR) is 0.89, and the mean Unit-level Total Nonresponse (UTN) is 0.12. The URR of smartphone respondents was lower by 5 % points compared to PC users. Among the 5 experimental cells, IBI unfold has the best mean URR (0.90), while HSM and IBI paging performed the worst (mean of 0.88).

6 Usable respondents (grid vs. non-grid questions)

Table 6.1: Mean values for respondent usability indicators by experimental cell and question type

Indicator (MEAN)	Question type	Std.	IBI scroll	IBI unfold	HSM	IBI paging	Total
exposed %	Grid	**0.66**	0.66	0.66	0.65	0.65	0.65
	Non-grid	**0.82**	0.81	0.82	0.81	0.79	0.81
	Total	0.72	0.72	0.72	0.71	0.70	0.71
exposed valid %	Grid	**0.97**	0.98	0.98	0.95	0.98	0.97
	Non-grid	**0.85**	0.84	0.84	0.84	0.85	0.84
	Total	0.91	0.92	0.92	0.91	0.92	0.92
exposed item NR %	Grid	0.01	0.00	0.01	0.02	0.00	0.01
	Non-grid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.01	0.00	0.01
exposed nonsubstantive %	Grid	**0.03**	0.01	0.01	0.02	0.02	0.02
	Non-grid	**0.15**	0.16	0.16	0.15	0.15	0.15
	Total	0.08	0.08	0.08	0.08	0.07	0.08
UIN (Unit-level Item Nonresponse)	Grid	0.01	0.00	0.01	0.02	0.00	0.01
	Non-grid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.01	0.00	0.01
UBL (Breakoff Unit Level)	Grid	0.10	0.10	0.09	0.10	0.11	0.10
	Non-grid	0.11	0.11	0.11	0.12	0.13	0.12
	Total	0.11	0.11	0.10	0.11	0.12	0.11
UBR (Unit-level Breakoff Rate)	Grid	0.11	0.10	0.10	0.13	0.11	0.11
	Non-grid	0.12	0.12	0.11	0.12	0.14	0.12
	Total	0.11	0.11	0.10	0.12	0.12	0.11
UTN (Unit-level Total Nonresponse)	Grid	0.11	0.11	0.10	0.14	0.12	0.12
	Non-grid	0.12	0.12	0.11	0.12	0.14	0.12
	Total	0.11	0.11	0.10	0.13	0.12	0.12
URR (Unit-level Response Rate)	Grid	0.89	0.89	0.90	0.86	0.88	0.88
	Non-grid	0.88	0.88	0.89	0.88	0.86	0.88
	Total	0.89	0.89	0.90	0.87	0.88	0.88
UCL (Unit Completeness Level)	Grid	0.89	0.90	0.90	0.87	0.89	0.89
	Non-grid	0.88	0.88	0.89	0.88	0.86	0.88
	Total	0.89	0.89	0.90	0.88	0.88	0.89
UIL (Unit Non-Applicability Level)	Grid	**0.26**	0.26	0.27	0.27	0.26	0.26
	Non-grid	**0.07**	0.07	0.07	0.07	0.07	0.07
	Total	0.19	0.19	0.19	0.19	0.19	0.19
UAQ (Unit Additional Questions)	Grid	0.00	0.00	0.00	0.00	0.00	0.00
	Non-grid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00

Table 6.2: Median values for respondent usability indicators by experimental cell and question type

Indicator (MEDIAN)	Question type	Std.	IBI scroll	IBI unfold	HSM	IBI paging	Total
exposed %	Grid	**0.77**	0.77	0.78	0.77	0.78	0.78
	Nongrid	**0.93**	0.93	0.93	0.93	0.93	0.93
	Total	0.83	0.83	0.83	0.83	0.84	0.83
exposed valid %	Grid	**0.98**	0.99	1.00	0.97	0.99	0.99
	Nongrid	**0.82**	0.82	0.82	0.82	0.82	0.82
	Total	0.91	0.92	0.92	0.91	0.92	0.92
exposed item NR %	Grid	0.00	0.00	0.00	0.00	0.00	0.00
	Nongrid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00
exposed nonsubstantive %	Grid	**0.02**	0.00	0.00	0.02	0.01	0.01
	Nongrid	**0.18**	0.18	0.18	0.18	0.18	0.18
	Total	0.08	0.08	0.08	0.08	0.08	0.08
UIN (Unit-level Item Nonresponse)	Grid	0.00	0.00	0.00	0.00	0.00	0.00
	Nongrid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00
UBL (Breakoff Unit Level)	Grid	0.00	0.00	0.00	0.00	0.00	0.00
	Nongrid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00
UBR (Unit-level Breakoff Rate)	Grid	0.00	0.00	0.00	0.01	0.00	0.00
	Nongrid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00
UTN (Unit-level Total Nonresponse)	Grid	0.00	0.00	0.00	0.02	0.00	0.00
	Nongrid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.01	0.00	0.00
URR (Unit-level Response Rate)	Grid	1.00	1.00	1.00	0.98	1.00	1.00
	Nongrid	1.00	1.00	1.00	1.00	1.00	1.00
	Total	1.00	1.00	1.00	0.99	1.00	1.00
UCL (Unit Completeness Level)	Grid	1.00	1.00	1.00	0.99	1.00	1.00
	Nongrid	1.00	1.00	1.00	1.00	1.00	1.00
	Total	1.00	1.00	1.00	1.00	1.00	1.00
UIL (Unit Non-Applicability Level)	Grid	**0.22**	0.22	0.22	0.22	0.21	0.22
	Nongrid	**0.07**	0.07	0.07	0.07	0.07	0.07
	Total	0.16	0.16	0.16	0.16	0.15	0.16
UAQ (Unit Additional Questions)	Grid	0.00	0.00	0.00	0.00	0.00	0.00
	Nongrid	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00

Respondent usability indicators in grid vs. non-grid questions: On average, respondents in grids were exposed to fewer items (66 %) compared to non-grid questions (82 % of items) due to IF logic (branching). Among the exposed items, the mean percentage of valid answers in grids equaled 97%, while in non-grid questions this was 85 %. On average, more nonsubstantive answers were provided in non-grid questions (15 %) compared to grids (3 %).

7 Timing

Methodological note: As for now, raw completion times were used in the analyses.

7.1 Completion time ≤ 45 minutes cutoff

Table 7.1: Descriptive statistics for completion time (in minutes) by device

Exp. cell	Mean	Median	St. dev.	Min.	Max.	N
PC	22.6	21.2	8.0	5.2	44.9	1976
Phone	21.5	20.1	7.7	5.6	44.9	1550
Total	22.1	20.7	7.9	5.2	44.9	3526

Table 7.2: Descriptive statistics for completion time (in minutes) by experimental cell

Exp. cell	Mean	Median	St. dev.	Min.	Max.	N
Standard	19.8	18.9	7.0	5.6	44.4	744
IBI scroll	20.8	**19.6**	7.2	5.6	44.9	744
IBI unfold	20.4	19.1	7.3	5.2	44.5	732
HSM	21.8	**20.4**	7.3	5.9	44.7	708
IBI paging	28.9	**28.6**	7.2	**10.5**	44.9	**598**
Total	22.1	20.7	7.9	5.2	44.9	3526

Table 7.3: Descriptive statistics for completion time (in minutes) by device and experimental cell

Exp. cell	Device	Mean	Median	St. dev.	Min.	Max.	N
Standard	PC	20.1	19.0	7.2	7.2	44.4	401
	Phone	19.5	18.8	6.8	5.6	42.5	343
IBI scroll	PC	21.7	**21.0**	7.6	7.4	44.6	417
	Phone	19.7	**18.5**	6.5	5.6	44.9	327
IBI unfold	PC	20.7	19.3	7.5	5.2	44.5	418
	Phone	19.9	18.8	6.9	6.4	42.5	314
HSM	PC	22.1	20.5	7.3	5.9	44.5	398
	Phone	21.4	20.3	7.3	8.1	44.7	310
IBI paging	PC	29.2	**29.0**	6.9	10.5	44.9	342
	Phone	28.6	**28.1**	7.5	10.8	44.7	256
Total	PC	22.6	21.2	8.0	5.2	44.9	1976
	Phone	21.5	20.1	7.7	5.6	44.9	1550

7.2 Completion time ≤ 60 minutes cutoff

Table 7.4: Descriptive statistics for completion time (in minutes) by device

Exp. cell	Mean	Median	St. dev.	Min.	Max.	N
PC	23.7	21.7	9.6	5.2	59.7	2055
Phone	22.8	20.5	9.8	5.6	59.9	1623
Total	23.3	21.1	9.7	5.2	59.9	3678

Table 7.5: Descriptive statistics for completion time (in minutes) by experimental cell

Exp. cell	Mean	Median	St. dev.	Min.	Max.	N
Standard	20.6	19.2	8.5	5.6	59.0	763
IBI scroll	21.5	19.9	8.5	5.6	59.0	761
IBI unfold	21.0	19.2	8.4	5.2	59.0	748
HSM	23.0	20.7	9.3	5.9	59.9	738
IBI paging	31.3	29.6	9.7	10.5	59.3	**668**
Total	23.3	21.1	9.7	5.2	59.9	3678

Table 7.6: Descriptive statistics for completion time (in minutes) by device and experimental cell

Exp. cell	Device	Mean	Median	St. dev.	Min.	Max.	N
Standard	PC	20.8	19.2	8.4	7.2	58.0	410
	Phone	20.4	19.1	8.7	5.6	59.0	353
IBI scroll	PC	22.5	**21.2**	8.9	7.4	59.0	428
	Phone	20.3	**18.6**	7.7	5.6	55.7	333
IBI unfold	PC	21.1	19.4	8.2	5.2	51.4	424
	Phone	20.9	19.0	8.8	6.4	59.0	324
HSM	PC	23.3	20.8	9.3	5.9	59.7	415
	Phone	22.6	20.6	9.4	8.1	59.9	323
IBI paging	PC	31.3	**29.8**	9.3	10.5	59.3	378
	Phone	31.3	**29.4**	10.3	10.8	59.3	290
Total	PC	23.7	21.7	9.6	5.2	59.7	2055
	Phone	22.8	20.5	9.8	5.6	59.9	1623

7.3 10 minutes ≤ completion time ≤ 120 minutes cutoff

Table 7.7: Descriptive statistics for completion time (in minutes) by device

Exp. cell	Mean	Median	St. dev.	Min.	Max.	N
PC	26.6	22.4	15.5	10.0	118.5	2108
Phone	25.8	21.1	15.8	10.2	118.9	1643
Total	26.2	21.7	15.6	10.0	118.9	3751

Table 7.8: Descriptive statistics for completion time (in minutes) by experimental cell

Exp. cell	Mean	Median	St. dev.	Min.	Max.	N
Standard	23.3	19.7	14.2	10.2	118.5	759
IBI scroll	23.4	20.3	13.0	10.4	112.0	763
IBI unfold	23.9	19.8	14.9	10.2	118.5	749
HSM	25.3	21.1	14.5	10.0	114.4	750
IBI paging	35.6	30.8	17.7	10.5	118.9	730
Total	26.2	21.7	15.6	10.0	118.9	3751

Table 7.9: Descriptive statistics for completion time (in minutes) by device and experimental cell

Exp. cell	Device	Mean	Median	St. dev.	Min.	Max.	N
Standard	PC	23.3	19.8	14.4	10.3	114.9	415
	Phone	23.2	19.6	13.9	10.2	118.5	344
IBI scroll	PC	24.3	**21.5**	13.0	10.4	110.6	430
	Phone	22.2	**18.9**	13.0	10.5	112.0	333
IBI unfold	PC	24.6	**20.5**	15.9	10.4	118.5	427
	Phone	23.0	**19.4**	13.3	10.2	103.0	322
HSM	PC	24.9	21.2	12.5	10.0	99.6	419
	Phone	25.8	21.1	16.7	10.5	114.4	331
IBI paging	PC	36.0	**30.9**	17.6	10.5	114.6	417
	Phone	35.2	**30.5**	18.0	10.8	118.9	313
Total	PC	26.6	22.4	15.5	10.0	118.5	2108
	Phone	25.8	21.1	15.8	10.2	118.9	1643

Timing: Basic timing analysis suggests that respondents multitasked and took breaks. On average, PC respondents took longer (26.6 minutes) than smartphone users (25.8 minutes). This could perhaps be explained by the fact that it is easier to multitask on the PC. Furthermore, it is easier to take a break from using the PC, as smartphone users may try to complete their tasks in one sitting. The difference between PCs and smartphones was the largest in the IBI scroll and IBI unfold groups, where smartphones were on average faster by 1–2 minutes. In the HSM group, however, smartphones actually took a bit longer than PC respondents.

Comparing the five groups without considering the device, the IBI paging group took by far the longest (mean of 35 minutes). Standard, IBI scroll, and IBI unfold groups all took about 23–24 minutes on average, while HSM took a bit longer (25 minutes). The results were best compared using the upper cutoff of 120 minutes, as even a cutoff of 60 minutes cut too many respondents belonging to the IBI paging group.

8 Satisficing

8.1 Summary of grids

Table 8.1: Summary of 13 grids (>2 categories, >2 items)

Question	Wording	Cat.	Items	Minimum	Maximum	Type
SIdevice3	In the last 12 months, which of the following Internet activities did you perform using a computer or mobile phone?	**4**	10	**(nominal)**	**(nominal)**	R (recall)
O4	In the last 12 months, how often did you carry out the following actions to protect your online privacy, anonymity and information security?	5	13	1 (never)	5 (always)	R (recall)
SIfreqSNS	How often did you use the following social networking sites in the last 12 months?	5	12	1 (less than once a month)	5 (several times a day)	R (recall)
O9	Please indicate the frequency of visiting the following online shops in the last 12 months (regardless of buying or ordering goods or not).	**6**	15	1 (never)	6 (several times a day)	R (recall)
O10	Please indicate how often you bought or ordered goods from the following online shops in the last 12 months.	5	15	1 (never)	5 (almost every day)	R (recall)
O11	Please estimate the number of times that you bought or ordered online the following products or services during the last 12 months.	5	13	1 (0 times)	5 (more than 20 times)	R (recall)
O12	Please estimate the total amount of money you spent for buying or ordering online the following products or services in the last 12 months.	5	13	1 (up to 30 EUR)	5 (more than 2500 EUR)	R (recall)
O13	Please specify the importance of the following factors when deciding to shop online.	5	10	1 (not at all important)	5 (extremely important)	A (attitude)
O14	In the last 12 months, how often did you use the following sources to find the goods or services that you bought or ordered online?	5	7	1 (never)	5 (always)	R (recall)
O18	To what extent do you agree or disagree with the following statements about online shopping?	5	7	1 (strongly disagree)	5 (strongly agree)	A (attitude)
O21	Please specify to what extent do you agree or disagree that the computers can be trusted to carry out the following tasks.	6	5	1 (strongly disagree)	5 (strongly agree)	A (attitude)

Question	Wording	Cat.	Items	Minimum	Maximum	Type
O22	In general, how often do you use the following websites to search for information?	5	5	1 (never)	5 (very often)	R (recall)
O23	The following statements describe people's behaviors. Please use the rating scale next to each statement to describe how accurately each statement describes you	5	20	1 (very inaccurate)	5 (very accurate)	A (attitude)

8.2 Analysis of Slovenian respondents

8.2.1 Nondifferentiation: Standard deviation

Table 8.2: Standard deviation within grids (>1 valid response per unit)

Grid	Standard			IBI scroll			IBI unfold			HSM			IBI paging			Total		
	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.
sd_SIdevice	0.77	0.80	0.78	0.80	0.87	0.83	0.83	0.85	0.84	0.78	0.85	0.81	0.83	0.89	0.86	0.80	0.85	**0.83**
sd_O4	1.13	1.13	1.13	1.20	1.19	1.20	1.18	1.16	1.17	1.20	1.18	1.19	1.25	1.25	1.25	1.19	1.18	**1.19**
sd_SIfreqSNS	0.86	0.84	0.85	0.91	1.00	0.96	0.92	0.86	0.89	0.91	0.88	0.89	0.99	0.96	0.98	0.92	0.91	**0.91**
sd_O9	0.50	0.62	0.56	0.54	0.56	0.55	0.53	0.58	0.56	0.56	0.62	0.59	0.60	0.64	0.62	0.55	0.60	**0.57**
sd_O10	0.41	0.51	0.46	0.48	0.52	0.50	0.51	0.49	0.50	0.49	0.60	0.54	0.50	0.52	0.51	0.48	0.52	**0.50**
sd_O11	0.52	0.60	0.56	0.54	0.57	0.55	0.53	0.59	0.55	0.53	0.61	0.57	0.58	0.63	0.60	0.54	0.60	**0.57**
sd_O12	0.65	0.66	0.65	0.66	0.65	0.66	0.65	0.67	0.66	0.67	0.68	0.68	0.70	0.71	0.71	0.67	0.67	**0.67**
sd_O13	0.83	0.79	0.81	0.88	0.89	0.88	0.82	0.88	0.85	0.85	0.85	0.85	0.94	0.93	0.94	0.87	0.87	**0.87**
sd_O14	1.04	1.03	1.03	1.06	1.10	1.08	1.04	1.08	1.06	1.07	1.06	1.07	1.10	1.10	1.10	1.06	1.07	**1.07**
sd_O18	0.97	1.00	0.98	1.00	0.99	0.99	0.96	0.98	0.97	0.95	0.94	0.94	1.01	1.02	1.02	0.98	0.99	**0.98**
sd_O21	0.85	0.91	0.88	0.88	0.89	0.88	0.85	0.88	0.87	0.84	0.86	0.85	0.91	0.94	0.92	0.87	0.90	**0.88**
sd_O22	1.08	1.02	1.05	1.08	1.08	1.08	1.07	1.08	1.07	1.03	1.05	1.04	1.08	1.07	1.08	1.07	1.06	**1.06**
sd_O23	1.01	1.00	1.01	0.99	1.00	0.99	0.97	1.00	0.98	0.98	0.98	0.98	1.00	1.03	1.02	0.99	1.00	**1.00**
Total	**0.82**	**0.84**	**0.83**	**0.85**	**0.87**	**0.86**	**0.84**	**0.85**	**0.84**	**0.84**	**0.86**	**0.85**	**0.88**	**0.90**	**0.89**	**0.84**	**0.86**	**0.85**

Nondifferentiation and straightlining: Overall, the differences in straightlining are more pronounced in grids where the scales relate to factual issues (see also Table 8.1) Across all grids, nondifferentiation was worst in the standard grid experimental cell, where the mean standard deviation of the respondent's answers was 0.83. On the other hand, the mean SD was highest for IBI paging (0.89), followed by HSM (0.88). The percentage of straightliners (units with SD of 0) was again worst in the standard grid group (11 %) and best in the paging group (6 %). Comparing the devices suggests that smartphones perform slightly better in terms of nondifferentiation, but about the same as PC respondents when it comes to straightlining (extreme nondifferentiation).

8.2.2 Straightliners: Extreme nondifferentiation

Table 8.3: Mean percentage of straightliners within grids (units with SD = 0, >1 valid response)

Grid	Standard			IBI scroll			IBI unfold			HSM			IBI paging			Total		
	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.
SIdevice	0.08	0.13	0.10	0.05	0.09	0.07	0.05	0.08	0.06	0.07	0.09	0.08	0.03	0.07	0.05	0.06	0.09	**0.07**
O4	0.04	0.07	0.05	0.03	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.02	0.02	**0.02**
SIfreqSNS	0.19	0.24	0.22	0.17	0.12	0.15	0.16	0.20	0.18	0.17	0.18	0.18	0.12	0.14	0.13	0.16	0.18	**0.17**
O9	0.15	0.14	0.14	0.15	0.10	0.13	0.15	0.15	0.15	0.15	0.11	0.14	0.11	0.09	0.10	0.14	0.12	**0.13**
O10	0.40	0.31	0.36	0.32	0.28	0.30	0.27	0.32	0.30	0.32	0.23	0.28	0.27	0.25	0.26	0.31	0.28	**0.30**
O11	0.06	0.02	0.04	0.03	0.02	0.03	0.04	0.02	0.03	0.04	0.02	0.03	0.04	0.02	0.03	0.04	0.02	**0.03**
O12	0.11	0.16	0.14	0.13	0.13	0.13	0.16	0.14	0.15	0.15	0.14	0.15	0.12	0.12	0.12	0.13	0.14	**0.13**
O13	0.04	0.11	0.07	0.04	0.03	0.04	0.06	0.04	0.05	0.04	0.03	0.03	0.01	0.00	0.01	0.04	0.04	**0.04**
O14	0.03	0.04	0.03	0.02	0.00	0.01	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.02	**0.02**
O18	0.06	0.07	0.07	0.04	0.03	0.03	0.05	0.03	0.04	0.05	0.05	0.05	0.00	0.03	0.02	0.04	0.04	**0.04**
O21	0.12	0.11	0.11	0.08	0.07	0.08	0.09	0.07	0.08	0.09	0.08	0.09	0.05	0.05	0.05	0.09	0.08	**0.08**
O22	0.04	0.05	0.05	0.03	0.04	0.03	0.03	0.02	0.02	0.05	0.03	0.04	0.02	0.03	0.03	0.04	0.03	**0.03**
O23	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	**0.01**
Total	**0.10**	**0.11**	**0.11**	**0.08**	**0.07**	**0.08**	**0.09**	**0.09**	**0.08**	**0.09**	**0.08**	**0.09**	**0.06**	**0.06**	**0.06**	**0.08**	**0.08**	**0.08**

8.2.3 Extreme responses

Table 8.4: Mean percentage of extreme responses within grids (extreme positive or extreme negative)

Grid	Standard			IBI scroll			IBI unfold			HSM			IBI paging			Total		
	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.
O4_p	0.42	0.44	0.43	0.41	0.42	0.41	0.42	0.41	0.41	0.42	0.40	0.41	0.41	0.40	0.41	0.41	0.41	**0.41**
SIfreqSNS_p	0.29	0.40	0.34	0.32	0.41	0.36	0.28	0.40	0.34	0.30	0.39	0.34	0.27	0.38	0.32	0.29	0.39	**0.34**
O9_p	0.80	0.76	0.78	0.79	0.78	0.78	0.80	0.77	0.79	0.80	0.75	0.78	0.76	0.75	0.75	0.79	0.76	**0.78**
O10_p	0.30	0.30	0.30	0.32	0.32	0.32	0.33	0.37	0.35	0.36	0.33	0.34	0.39	0.37	0.38	0.34	0.34	**0.34**
O11_p	0.68	0.62	0.65	0.65	0.65	0.65	0.67	0.63	0.65	0.67	0.61	0.64	0.64	0.64	0.64	0.66	0.63	**0.65**
O12_p	0.30	0.36	0.33	0.33	0.36	0.34	0.33	0.38	0.35	0.34	0.37	0.36	0.26	0.29	0.27	0.31	0.35	**0.33**
O13_p	0.24	0.35	0.29	0.25	0.30	0.27	0.23	0.27	0.25	0.21	0.22	0.22	0.23	0.24	0.23	0.23	0.28	**0.25**
O14_p	0.25	0.27	0.26	0.27	0.27	0.27	0.27	0.28	0.27	0.26	0.26	0.26	0.25	0.25	0.25	0.26	0.26	**0.26**
O18_p	0.27	0.28	0.27	0.25	0.26	0.25	0.25	0.24	0.24	0.23	0.23	0.23	0.23	0.27	0.25	0.24	0.26	**0.25**
O21_p	0.19	0.22	0.20	0.18	0.17	0.18	0.17	0.18	0.18	0.15	0.17	0.15	0.17	0.19	0.18	0.17	0.19	**0.18**
O22_p	0.29	0.30	0.30	0.27	0.30	0.28	0.26	0.29	0.27	0.26	0.27	0.26	0.28	0.32	0.30	0.27	0.30	**0.28**
O23_p	0.15	0.15	0.15	0.13	0.15	0.14	0.12	0.14	0.13	0.13	0.13	0.13	0.13	0.16	0.14	0.13	0.15	**0.14**
Total	**0.35**	**0.37**	**0.36**	**0.35**	**0.36**	**0.35**	**0.34**	**0.36**	**0 .35**	**0.34**	**0.34**	**0.34**	**0.33**	**0.35**	**0.34**	**0.34**	**0.36**	**0.35**

Extreme responses: Respondents in the standard grid experimental condition performed the worst in the overall mean percentage of extreme responses (36 %), followed by IBI scroll and IBI unfold (35%), and then by HSM and IBI paging (34 %). Smartphone respondents provided a higher mean percentage of extreme responses in grids (36 %) compared to PC respondents (34 %).

8.2.4 Midpoint responses

Table 8.5: Mean percentage of midpoint responses within grids

Grid	Standard			IBI scroll			IBI unfold			HSM			IBI paging			Total		
	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.	PC	SP	Tot.
O4_p	0.22	0.20	0.21	0.22	0.22	0.22	0.22	0.21	0.22	0.21	0.22	0.22	0.22	0.21	0.21	0.22	0.21	**0.21**
SIfreqSNS_p	0.26	0.19	0.23	0.28	0.22	0.26	0.28	0.20	0.25	0.28	0.22	0.25	0.30	0.22	0.26	0.28	0.21	**0.25**
O10_p	0.13	0.16	0.15	0.14	0.12	0.13	0.15	0.14	0.15	0.12	0.18	0.14	0.11	0.13	0.12	0.13	0.15	**0.14**
O11_p	0.03	0.07	0.05	0.03	0.04	0.04	0.03	0.04	0.04	0.04	0.06	0.04	0.04	0.05	0.04	0.03	0.05	**0.04**
O12_p	0.24	0.17	0.20	0.21	0.20	0.21	0.21	0.20	0.21	0.24	0.20	0.22	0.26	0.23	0.25	0.23	0.20	**0.22**
O13_p	0.25	0.20	0.23	0.25	0.23	0.24	0.26	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.26	0.25	0.23	**0.24**
O14_p	0.29	0.28	0.28	0.30	0.29	0.29	0.28	0.29	0.28	0.28	0.29	0.28	0.30	0.30	0.30	0.29	0.29	**0.29**
O18_p	0.29	0.29	0.29	0.29	0.28	0.29	0.29	0.26	0.28	0.29	0.31	0.30	0.29	0.28	0.29	0.29	0.28	**0.29**
O21_p	0.34	0.32	0.33	0.34	0.32	0.33	0.34	0.32	0.33	0.32	0.35	0.33	0.33	0.30	0.32	0.33	0.32	**0.33**
O22_p	0.25	0.25	0.25	0.26	0.25	0.26	0.27	0.26	0.26	0.26	0.25	0.26	0.30	0.25	0.27	0.27	0.25	**0.26**
O23_p	0.32	0.34	0.33	0.34	0.34	0.34	0.35	0.32	0.33	0.33	0.34	0.33	0.32	0.33	0.33	0.33	0.33	**0.33**
Total	**0.24**	**0.22**	**0.23**	**0.24**	**0.23**	**0.24**	**0.24**	**0.22**	**0.23**	**0.24**	**0.24**	**0.24**	**0.25**	**0.23**	**0.24**	**0.24**	**0.23**	**0.24**

Midpoint responses: The mean percentage of midpoint responses is slightly higher on PC (24 %) compared to smartphones (23 %). No noticeable differences seem to exist between the five experimental groups.

8.2.5 All units vs. fully complete (URR = 1)

Table 8.6: Standard deviation within grids (>1 valid response per unit) by URR by device

Grid	All units			URR=1		
	PC	**SP**	**Tot.**	**PC**	**SP**	**Tot.**
sd_SIdevice	0.80	0.85	0.83	0.81	0.88	0.84
sd_O4	1.19	1.18	1.19	1.21	1.20	1.20
sd_SIfreqSNS	0.92	0.91	0.91	0.93	0.93	0.93
sd_O9	0.55	0.60	0.57	0.55	0.60	0.57
sd_O10	0.48	0.52	0.50	0.48	0.51	0.50
sd_O11	0.54	0.60	0.57	0.55	0.61	0.58
sd_O12	0.67	0.67	0.67	0.67	0.68	0.68
sd_O13	0.87	0.87	0.87	0.87	0.87	0.87
sd_O14	1.06	1.07	1.07	1.08	1.10	1.09
sd_O18	0.98	0.99	0.98	1.00	1.01	1.01
sd_O21	0.87	0.90	0.88	0.89	0.91	0.90
sd_O22	1.07	1.06	1.06	1.08	1.07	1.07
sd_O23	0.99	1.00	1.00	1.00	1.01	1.01
Total	**0.84**	**0.86**	**0.85**	**0.86**	**0.88**	**0.86**

Table 8.7: Standard deviation within grids (>1 valid response per unit) by URR by experimental cell

Grid	All units						URR=1					
	Std.	**Scroll**	**Unf.**	**HSM**	**Pag.**	**Tot.**	**Std.**	**Scroll**	**Unf.**	**HSM**	**Pag.**	**Tot.**
sd_SIdevice	0.78	0.83	0.84	0.81	0.86	0.83	0.82	0.84	0.85	0.84	0.85	0.84
sd_O4	1.13	1.20	1.17	1.19	1.25	1.19	1.16	1.21	1.18	1.22	1.26	1.20
sd_SIfreqSNS	0.85	0.96	0.89	0.89	0.98	0.91	0.90	0.96	0.91	0.92	0.96	0.93
sd_O9	0.56	0.55	0.56	0.59	0.62	0.57	0.56	0.55	0.56	0.56	0.61	0.57
sd_O10	0.46	0.50	0.50	0.54	0.51	0.50	0.47	0.50	0.51	0.50	0.50	0.50
sd_O11	0.56	0.55	0.55	0.57	0.60	0.57	0.57	0.56	0.56	0.57	0.61	0.58
sd_O12	0.65	0.66	0.66	0.68	0.71	0.67	0.66	0.66	0.65	0.69	0.72	0.68
sd_O13	0.81	0.88	0.85	0.85	0.94	0.87	0.81	0.88	0.85	0.83	0.95	0.87
sd_O14	1.03	1.08	1.06	1.07	1.10	1.07	1.07	1.08	1.07	1.11	1.10	1.09
sd_O18	0.98	0.99	0.97	0.94	1.02	0.98	1.03	1.01	0.97	0.98	1.03	1.01
sd_O21	0.88	0.88	0.87	0.85	0.92	0.88	0.92	0.89	0.88	0.86	0.94	0.90
sd_O22	1.05	1.08	1.07	1.04	1.08	1.06	1.07	1.08	1.07	1.07	1.08	1.07
sd_O23	1.01	0.99	0.98	0.98	1.02	1.00	1.03	1.00	0.99	0.99	1.02	1.01
Total	**0.83**	**0.86**	**0.84**	**0.85**	**0.89**	**0.85**	**0.85**	**0.86**	**0.85**	**0.86**	**0.89**	**0.86**

Nondifferentiation and straightlining by URR: Comparing all respondents with only those who had zero item nonresponse (URR=1) reveals basically overall difference between the devices. There are some minor differences between the experimental groups; in the standard grid condition, the mean SD is lower for all units (0.83) compared to only those with an URR of 1 (0.85). Similarly, the mean percentage of straightliners in the standard grid group is higher among all units (11 %) than among those with an URR of 1 (9 %).

Table 8.8: Mean percentage of straightliners within grids (units with SD = 0, >1 valid response) by URR by device

Grid	All units			URR=1		
	PC	SP	Tot.	PC	SP	Tot.
sd_SIdevice	0.06	0.09	0.07	0.05	0.07	0.06
sd_O4	0.02	0.02	0.02	0.01	0.02	0.02
sd_SIfreqSNS	0.16	0.18	0.17	0.15	0.16	0.16
sd_O9	0.14	0.12	0.13	0.14	0.11	0.12
sd_O10	0.31	0.28	0.30	0.31	0.28	0.30
sd_O11	0.04	0.02	0.03	0.04	0.01	0.03
sd_O12	0.13	0.14	0.13	0.12	0.13	0.13
sd_O13	0.04	0.04	0.04	0.04	0.04	0.04
sd_O14	0.02	0.02	0.02	0.02	0.01	0.01
sd_O18	0.04	0.04	0.04	0.03	0.03	0.03
sd_O21	0.09	0.08	0.08	0.07	0.07	0.07
sd_O22	0.04	0.03	0.03	0.03	0.03	0.03
sd_O23	0.01	0.01	0.01	0.01	0.01	0.01
Total	**0.08**	**0.08**	**0.08**	**0.08**	**0.07**	**0.08**

Table 8.9: Mean percentage of straightliners within grids (units with SD = 0, >1 valid response) by URR by experimental cell

Grid	All units						URR=1					
	Std.	Scroll	Unf.	HSM	Pag.	Tot.	Std.	Scroll	Unf.	HSM	Pag.	Tot.
sd_SIdevice	0.10	0.07	0.06	0.08	0.05	0.07	0.07	0.07	0.05	0.06	0.04	0.06
sd_O4	0.05	0.02	0.01	0.02	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02
sd_SIfreqSNS	0.22	0.15	0.18	0.18	0.13	0.17	0.19	0.14	0.16	0.17	0.14	0.16
sd_O9	0.14	0.13	0.15	0.14	0.10	0.13	0.13	0.12	0.14	0.14	0.09	0.12
sd_O10	0.36	0.30	0.30	0.28	0.26	0.30	0.35	0.30	0.28	0.31	0.26	0.30
sd_O11	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03
sd_O12	0.14	0.13	0.15	0.15	0.12	0.13	0.13	0.12	0.15	0.13	0.11	0.13
sd_O13	0.07	0.04	0.05	0.03	0.01	0.04	0.07	0.03	0.05	0.03	0.01	0.04
sd_O14	0.03	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.01	0.01	0.01
sd_O18	0.07	0.03	0.04	0.05	0.02	0.04	0.05	0.03	0.04	0.03	0.01	0.03
sd_O21	0.11	0.08	0.08	0.09	0.05	0.08	0.09	0.07	0.07	0.08	0.05	0.07
sd_O22	0.05	0.03	0.02	0.04	0.03	0.03	0.04	0.03	0.02	0.02	0.02	0.03
sd_O23	0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01
Total	**0.11**	**0.08**	**0.08**	**0.09**	**0.06**	**0.08**	**0.09**	**0.08**	**0.08**	**0.08**	**0.06**	**0.08**

Table 8.10: Mean percentage of extreme responses within grids (extreme positive or extreme negative) by URR by device

Grid	All units			URR=1		
	PC	SP	Tot.	PC	SP	Tot.
O4_p	0.41	0.41	0.41	0.42	0.42	0.42
SIfreqSNS_p	0.29	0.39	0.34	0.29	0.40	0.34
O9_p	0.79	0.76	0.78	0.80	0.77	0.79
O10_p	0.34	0.34	0.34	0.34	0.34	0.34
O11_p	0.66	0.63	0.65	0.66	0.64	0.65
O12_p	0.31	0.35	0.33	0.30	0.35	0.32
O13_p	0.23	0.28	0.25	0.24	0.28	0.25
O14_p	0.26	0.26	0.26	0.26	0.27	0.26
O18_p	0.24	0.26	0.25	0.25	0.26	0.26
O21_p	0.17	0.19	0.18	0.17	0.19	0.18
O22_p	0.27	0.30	0.28	0.27	0.29	0.28
O23_p	0.13	0.15	0.14	0.13	0.15	0.14
Total	**0.34**	**0.36**	**0.35**	**0.34**	**0.36**	**0.35**

Extreme responses by URR: When averaging all grids there are no differences between the devices among all respondents vs. only those with an URR of 1. There are some minor differences when looking at the experimental cells. Among respondents with an URR of 1, there are slightly more extreme responses for the standard grid and HSM (difference of 1 % point).

Table 8.11: Mean percentage of extreme responses within grids (extreme positive or extreme negative) by URR by experimental cell

Grid	All units						URR=1					
	Std.	Scroll	Unf.	HSM	Pag.	Tot.	Std.	Scroll	Unf.	HSM	Pag.	Tot.
O4_p	0.43	0.41	0.41	0.41	0.41	0.41	0.44	0.41	0.41	0.43	0.40	0.42
SIfreqSNS_p	0.34	0.36	0.34	0.34	0.32	0.34	0.34	0.36	0.34	0.33	0.32	0.34
O9_p	0.78	0.78	0.79	0.78	0.75	0.78	0.79	0.79	0.79	0.82	0.76	0.79
O10_p	0.30	0.32	0.35	0.34	0.38	0.34	0.32	0.32	0.33	0.34	0.39	0.34
O11_p	0.65	0.65	0.65	0.64	0.64	0.65	0.66	0.65	0.65	0.67	0.63	0.65
O12_p	0.33	0.34	0.35	0.36	0.27	0.33	0.32	0.34	0.35	0.33	0.27	0.32
O13_p	0.29	0.27	0.25	0.22	0.23	0.25	0.28	0.27	0.25	0.21	0.23	0.25
O14_p	0.26	0.27	0.27	0.26	0.25	0.26	0.26	0.27	0.27	0.27	0.24	0.26
O18_p	0.27	0.25	0.24	0.23	0.25	0.25	0.29	0.25	0.24	0.25	0.25	0.26
O21_p	0.20	0.18	0.18	0.15	0.18	0.18	0.21	0.18	0.17	0.15	0.18	0.18
O22_p	0.30	0.28	0.27	0.26	0.30	0.28	0.30	0.28	0.27	0.25	0.29	0.28
O23_p	0.15	0.14	0.13	0.13	0.14	0.14	0.16	0.14	0.13	0.13	0.14	0.14
Total	**0.36**	**0.35**	**0.35**	**0.34**	**0.34**	**0.35**	**0.37**	**0.35**	**0.35**	**0.35**	**0.34**	**0.35**

Table 8.12: Mean percentage of midpoint responses within grids by URR by device

Grid	All units			URR=1		
	PC	SP	Tot.	PC	SP	PC
O4_p	0.22	0.21	0.21	0.21	0.21	0.21
SIfreqSNS_p	0.28	0.21	0.25	0.28	0.21	0.25
O10_p	0.13	0.15	0.14	0.13	0.14	0.14
O11_p	0.03	0.05	0.04	0.03	0.04	0.04
O12_p	0.23	0.20	0.22	0.24	0.20	0.22
O13_p	0.25	0.23	0.24	0.25	0.23	0.24
O14_p	0.29	0.29	0.29	0.29	0.29	0.29
O18_p	0.29	0.28	0.29	0.29	0.27	0.28
O21_p	0.33	0.32	0.33	0.33	0.31	0.32
O22_p	0.27	0.25	0.26	0.27	0.25	0.26
O23_p	0.33	0.33	0.33	0.33	0.33	0.33
Total	**0.24**	**0.23**	**0.24**	**0.24**	**0.23**	**0.23**

Table 8.13: Mean percentage of midpoint responses within grids by URR by experimental cell

Grid	All units						URR=1					
	Std.	Scroll	Unf.	HSM	Pag.	Tot.	Std.	Scroll	Unf.	HSM	Pag.	Tot.
O4_p	0.21	0.22	0.22	0.22	0.21	0.21	0.19	0.22	0.22	0.21	0.21	0.21
SIfreqSNS_p	0.23	0.26	0.25	0.25	0.26	0.25	0.23	0.26	0.24	0.26	0.26	0.25
O10_p	0.15	0.13	0.15	0.14	0.12	0.14	0.14	0.13	0.16	0.13	0.12	0.14
O11_p	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.04
O12_p	0.20	0.21	0.21	0.22	0.25	0.22	0.21	0.21	0.20	0.24	0.25	0.22
O13_p	0.23	0.24	0.24	0.25	0.26	0.24	0.22	0.24	0.24	0.26	0.26	0.24
O14_p	0.28	0.29	0.28	0.28	0.30	0.29	0.28	0.30	0.28	0.26	0.30	0.29
O18_p	0.29	0.29	0.28	0.30	0.29	0.29	0.27	0.28	0.28	0.29	0.29	0.28
O21_p	0.33	0.33	0.33	0.33	0.32	0.33	0.32	0.32	0.33	0.32	0.32	0.32
O22_p	0.25	0.26	0.26	0.26	0.27	0.26	0.25	0.26	0.26	0.25	0.27	0.26
O23_p	0.33	0.34	0.33	0.33	0.33	0.33	0.32	0.34	0.34	0.33	0.32	0.33
Total	**0.23**	**0.24**	**0.23**	**0.24**	**0.24**	**0.24**	**0.23**	**0.24**	**0.24**	**0.24**	**0.24**	**0.23**

Midpoint responses by URR: There are no differences between the devices among all respondents vs. only those with an URR of 1 when averaging all grids. Among the experimental groups, only the IBI unfold shows an overall difference, as the mean percentage of midpoint responses is lower among all respondents (23 %) compared to those with an URR of 1 (24 %).

8.3 Language comparison (Slovenian, Hebrew, Arabic)

Table 8.14: Standard deviation within grids (>1 valid response per unit) by language by device

Grid	Slovenian			Hebrew			Arabic			Total		
	PC	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**
sd_SIdevice	0.80	0.85	0.83	---	---	---	---	---	---	0.80	0.85	**0.83**
sd_O4	1.19	1.18	1.19	1.24	1.23	1.23	1.09	1.24	1.22	1.20	1.20	**1.20**
sd_SIfreqSNS	0.92	0.91	0.91	---	---	---	---	---	---	0.92	0.91	**0.91**
sd_O9	0.55	0.60	0.57	0.77	0.85	0.82	0.63	0.86	0.84	0.58	0.68	**0.63**
sd_O10	0.48	0.52	0.50	0.60	0.69	0.66	0.48	0.68	0.67	0.50	0.58	**0.54**
sd_O11	0.54	0.60	0.57	0.73	0.84	0.80	0.53	0.62	0.61	0.57	0.66	**0.62**
sd_O12	0.67	0.67	0.67	0.77	0.81	0.80	0.65	0.65	0.65	0.68	0.71	**0.70**
sd_O13	0.87	0.87	0.87	0.83	0.85	0.84	0.89	0.84	0.84	0.86	0.86	**0.86**
sd_O14	1.06	1.07	1.07	1.02	1.07	1.05	0.78	0.89	0.88	1.05	1.06	**1.06**
sd_O18	0.98	0.99	0.98	1.15	1.18	1.17	0.97	1.04	1.03	1.00	1.04	**1.02**
sd_O21	0.87	0.90	0.88	0.87	0.89	0.89	0.62	0.90	0.87	0.86	0.90	**0.88**
sd_O22	1.07	1.06	1.06	1.08	1.10	1.09	0.95	1.09	1.07	1.07	1.07	**1.07**
sd_O23	0.99	1.00	1.00	1.09	1.11	1.11	1.00	1.12	1.11	1.00	1.04	**1.02**
Total	**0.84**	**0.86**	**0.85**	**0.92**	**0.97**	**0.95**	**0.78**	**0.90**	**0.89**	**0.85**	**0.89**	**0.87**

Nondifferentiation and straightlining by language: Nondifferentiation is worst for the Slovenian respondents (mean SD = 0.85), followed by Arabic (0.89) and Hebrew respondents (0.95). The mean percentage of straightliners worst for the Arabic respondents (10 %), followed by Slovenian (8 %) and Hebrew respondents (5 %). However, if only the standard grid cell is compared, the Slovenian respondents are actually the worst performing (11 %), followed by Arabic (10 %), and Hebrew (5 %) respondents). There is also more dissimilarity in nondifferentiation between the devices among the Hebrew respondents compared to the other two languages.

Table 8.15: Standard deviation within grids (>1 valid response per unit) by language by experimental cell

Grid	Slovenian			Hebrew			Arabic			Total		
	Std.	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**
sd_SIdevice	0.78	0.81	0.83	---	---	---	---	---	---	0.78	0.81	**0.83**
sd_O4	1.13	1.19	1.19	1.24	1.23	1.23	1.22	---	1.22	1.18	1.21	**1.20**
sd_SIfreqSNS	0.85	0.89	0.91	---	---	---	---	---	---	0.85	0.89	**0.91**
sd_O9	0.56	0.59	0.57	0.81	0.84	0.82	0.84	---	0.84	0.68	0.69	**0.63**
sd_O10	0.46	0.54	0.50	0.65	0.67	0.66	0.67	---	0.67	0.56	0.60	**0.54**
sd_O11	0.56	0.57	0.57	0.83	0.78	0.80	0.61	---	0.61	0.66	0.66	**0.62**
sd_O12	0.65	0.68	0.67	0.80	0.80	0.80	0.65	---	0.65	0.71	0.73	**0.70**
sd_O13	0.81	0.85	0.87	0.84	0.84	0.84	0.84	---	0.84	0.83	0.85	**0.86**
sd_O14	1.03	1.07	1.07	1.06	1.04	1.05	0.88	---	0.88	1.02	1.06	**1.06**
sd_O18	0.98	0.94	0.98	1.19	1.14	1.17	1.03	---	1.03	1.06	1.02	**1.02**
sd_O21	0.88	0.85	0.88	0.90	0.87	0.89	0.87	---	0.87	0.88	0.86	**0.88**
sd_O22	1.05	1.04	1.06	1.11	1.07	1.09	1.07	---	1.07	1.08	1.05	**1.07**
sd_O23	1.01	0.98	1.00	1.14	1.07	1.11	1.11	---	1.11	1.06	1.01	**1.02**
Total	**0.83**	**0.85**	**0.85**	**0.96**	**0.94**	**0.95**	**0.89**	**---**	**0.89**	**0.87**	**0.88**	**0.87**

Table 8.16: Mean percentage of straightliners within grids (units with SD = 0, >1 valid response) by language by device

Grid	Slovenian			Hebrew			Arabic			Total		
	PC	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**
sd_SIdevice	0.06	0.09	0.07							0.06	0.09	**0.07**
sd_O4	0.02	0.02	0.02	0.03	0.02	0.02	0.18	0.03	0.04	0.02	0.02	**0.02**
sd_SIfreqSNS	0.16	0.18	0.17							0.16	0.18	**0.17**
sd_O9	0.14	0.12	0.13	0.06	0.05	0.05	0.21	0.03	0.04	0.13	0.09	**0.11**
sd_O10	0.31	0.28	0.30	0.22	0.15	0.18	0.30	0.23	0.23	0.30	0.24	**0.27**
sd_O11	0.04	0.02	0.03	0.03	0.02	0.02	0.00	0.04	0.03	0.04	0.02	**0.03**
sd_O12	0.13	0.14	0.13	0.10	0.08	0.09	0.09	0.24	0.23	0.13	0.13	**0.13**
sd_O13	0.04	0.04	0.04	0.08	0.05	0.06	0.15	0.08	0.09	0.04	0.05	**0.05**
sd_O14	0.02	0.02	0.02	0.04	0.03	0.03	0.31	0.13	0.14	0.03	0.03	**0.03**
sd_O18	0.04	0.04	0.04	0.03	0.02	0.02	0.15	0.07	0.08	0.04	0.04	**0.04**
sd_O21	0.09	0.08	0.08	0.06	0.05	0.05	0.37	0.09	0.12	0.09	0.07	**0.08**
sd_O22	0.04	0.03	0.03	0.05	0.04	0.05	0.07	0.08	0.08	0.04	0.04	**0.04**
sd_O23	0.01	0.01	0.01	0.03	0.01	0.02	0.00	0.03	0.02	0.01	0.01	**0.01**
Total	**0.08**	**0.08**	**0.08**	**0.07**	**0.05**	**0.05**	**0.17**	**0.10**	**0.10**	**0.08**	**0.08**	**0.08**

Table 8.17: Mean percentage of straightliners within grids (units with SD = 0, >1 valid response) by language by experimental cell

Grid	Slovenian			Hebrew			Arabic			Total		
	Std.	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**
sd_SIdevice	0.1	0.08	0.07	---	---	---	---	---	---	0.1	0.08	0.07
sd_O4	0.05	0.02	0.02	0.02	0.02	0.02	0.04	---	0.04	0.04	0.02	0.02
sd_SIfreqSNS	0.22	0.18	0.17	---	---	---	---	---	---	0.22	0.18	0.17
sd_O9	0.14	0.14	0.13	0.06	0.05	0.05	0.04	---	0.04	0.1	0.1	0.11
sd_O10	0.36	0.28	0.3	0.18	0.17	0.18	0.23	---	0.23	0.27	0.23	0.27
sd_O11	0.04	0.03	0.03	0.01	0.03	0.02	0.03	---	0.03	0.03	0.03	0.03
sd_O12	0.14	0.15	0.13	0.08	0.1	0.09	0.23	---	0.23	0.13	0.12	0.13
sd_O13	0.07	0.03	0.04	0.07	0.05	0.06	0.09	---	0.09	0.08	0.04	0.05
sd_O14	0.03	0.02	0.02	0.04	0.03	0.03	0.14	---	0.14	0.05	0.03	0.03
sd_O18	0.07	0.05	0.04	0.02	0.02	0.02	0.08	---	0.08	0.05	0.04	0.04
sd_O21	0.11	0.09	0.08	0.06	0.05	0.05	0.12	---	0.12	0.1	0.07	0.08
sd_O22	0.05	0.04	0.03	0.04	0.05	0.05	0.08	---	0.08	0.05	0.04	0.04
sd_O23	0.02	0.01	0.01	0.02	0.02	0.02	0.02	---	0.02	0.02	0.02	0.01
Total	**0.11**	**0.09**	**0.08**	**0.05**	**0.05**	**0.05**	**0.10**	**---**	**0.10**	**0.10**	**0.08**	**0.08**

Table 8.18: Mean percentage of extreme responses within grids (extreme positive or extreme negative) by language by device

Grid	Slovenian			Hebrew			Arabic			Total		
	PC	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**
O4_p	0.41	0.41	0.41	0.46	0.45	0.45	0.64	0.48	0.50	0.42	0.43	**0.43**
SIfreqSNS_p	0.29	0.39	0.34	---	---	---	---	---	---	0.29	0.39	**0.34**
O9_p	0.79	0.76	0.78	0.68	0.67	0.67	0.74	0.65	0.66	0.77	0.73	**0.75**
O10_p	0.34	0.34	0.34	0.30	0.35	0.33	0.22	0.38	0.37	0.33	0.34	**0.34**
O11_p	0.66	0.63	0.65	0.59	0.57	0.58	0.68	0.61	0.62	0.65	0.61	**0.63**
O12_p	0.31	0.35	0.33	0.34	0.33	0.33	0.31	0.45	0.44	0.32	0.35	**0.33**
O13_p	0.23	0.28	0.25	0.31	0.35	0.34	0.47	0.38	0.39	0.25	0.30	**0.28**
O14_p	0.26	0.26	0.26	0.27	0.28	0.28	0.54	0.36	0.37	0.26	0.27	**0.27**
O18_p	0.24	0.26	0.25	0.29	0.31	0.31	0.36	0.30	0.31	0.25	0.27	**0.26**
O21_p	0.17	0.19	0.18	0.16	0.17	0.16	0.34	0.22	0.24	0.17	0.18	**0.18**
O22_p	0.27	0.30	0.28	0.34	0.34	0.34	0.47	0.41	0.41	0.28	0.32	**0.30**
O23_p	0.13	0.15	0.14	0.23	0.22	0.22	0.22	0.25	0.25	0.15	0.17	**0.16**
Total	**0.34**	**0.36**	**0.35**	**0.36**	**0.37**	**0.36**	**0.45**	**0.41**	**0.41**	**0.35**	**0.37**	**0.36**

Extreme and midpoint responses by language: The mean percentage of extreme responses is highest among the Arabic respondents (41 %), followed by Hebrew (36 %) and Slovenian respondents (35 %). The highest dissimilarity between devices is for the Arabic respondents. The mean percentage of midpoint responses in the highest among the Slovenian respondents (24 %), followed by Hebrew (22 %) and Arabic respondents (20 %).

Table 8.19: Mean percentage of extreme responses within grids (extreme positive or extreme negative) by language by experimental cell

Grid	Slovenian			Hebrew			Arabic			Total		
	Std.	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**
O4_p	0.43	0.41	0.41	0.46	0.44	0.45	0.50	---	0.50	0.45	0.42	**0.43**
SIfreqSNS_p	0.34	0.34	0.34	---	---	---	---	---	---	0.34	0.34	**0.34**
O9_p	0.78	0.78	0.78	0.69	0.65	0.67	0.66	---	0.66	0.73	0.73	**0.75**
O10_p	0.30	0.34	0.34	0.31	0.35	0.33	0.37	---	0.37	0.31	0.35	**0.34**
O11_p	0.65	0.64	0.65	0.58	0.57	0.58	0.62	---	0.62	0.62	0.61	**0.63**
O12_p	0.33	0.36	0.33	0.33	0.33	0.33	0.44	---	0.44	0.34	0.35	**0.33**
O13_p	0.29	0.22	0.25	0.38	0.30	0.34	0.39	---	0.39	0.33	0.25	**0.28**
O14_p	0.26	0.26	0.26	0.30	0.25	0.28	0.37	---	0.37	0.29	0.26	**0.27**
O18_p	0.27	0.23	0.25	0.32	0.29	0.31	0.31	---	0.31	0.29	0.25	**0.26**
O21_p	0.20	0.15	0.18	0.17	0.16	0.16	0.24	---	0.24	0.20	0.16	**0.18**
O22_p	0.30	0.26	0.28	0.38	0.31	0.34	0.41	---	0.41	0.34	0.28	**0.30**
O23_p	0.15	0.13	0.14	0.24	0.20	0.22	0.25	---	0.25	0.20	0.16	**0.16**
Total	**0.36**	**0.34**	**0.35**	**0.38**	**0.35**	**0.36**	**0.41**	---	**0.41**	**0.37**	**0.35**	**0.36**

Table 8.20: Mean percentage of midpoint responses within grids by language by device

Grid	Slovenian			Hebrew			Arabic			Total		
	PC	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**	**PC**	**SP**	**Tot.**
O4_p	0.22	0.21	0.21	0.21	0.22	0.22	0.13	0.22	0.21	0.22	0.21	**0.21**
SIfreqSNS_p	0.28	0.21	0.25	---	---	---	---	---	---	0.28	0.21	**0.25**
O10_p	0.13	0.15	0.14	0.20	0.20	0.20	0.36	0.17	0.18	0.14	0.16	**0.15**
O11_p	0.03	0.05	0.04	0.07	0.07	0.07	0.04	0.06	0.06	0.04	0.06	**0.05**
O12_p	0.23	0.20	0.22	0.22	0.25	0.24	0.14	0.13	0.14	0.23	0.21	**0.22**
O13_p	0.25	0.23	0.24	0.20	0.18	0.19	0.17	0.18	0.18	0.24	0.22	**0.23**
O14_p	0.29	0.29	0.29	0.27	0.28	0.28	0.14	0.27	0.26	0.29	0.29	**0.29**
O18_p	0.29	0.28	0.29	0.20	0.21	0.21	0.15	0.22	0.21	0.28	0.26	**0.27**
O21_p	0.33	0.32	0.33	0.34	0.33	0.33	0.17	0.29	0.27	0.33	0.32	**0.33**
O22_p	0.27	0.25	0.26	0.23	0.24	0.24	0.16	0.23	0.23	0.26	0.25	**0.25**
O23_p	0.33	0.33	0.33	0.27	0.27	0.27	0.25	0.23	0.23	0.32	0.31	**0.32**
Total	**0.24**	**0.23**	**0.24**	**0.22**	**0.23**	**0.22**	**0.17**	**0.20**	**0.20**	**0.24**	**0.23**	**0.23**

Table 8.21: Mean percentage of midpoint responses within grids by language by experimental cell

Grid	Slovenian			Hebrew			Arabic			Total		
	Std.	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**	**Std.**	**HSM**	**Tot.**
O4_p	0.21	0.22	0.21	0.22	0.21	0.22	0.21	---	0.21	0.21	0.22	0.21
SIfreqSNS_p	0.23	0.25	0.25	---	---	---	---	---	---	0.23	0.25	0.25
O10_p	0.15	0.14	0.14	0.20	0.20	0.20	0.18	---	0.18	0.17	0.17	0.15
O11_p	0.05	0.04	0.04	0.07	0.07	0.07	0.06	---	0.06	0.06	0.05	0.05
O12_p	0.20	0.22	0.22	0.25	0.23	0.24	0.14	---	0.14	0.21	0.23	0.22
O13_p	0.23	0.25	0.24	0.19	0.18	0.19	0.18	---	0.18	0.21	0.22	0.23
O14_p	0.28	0.28	0.29	0.27	0.28	0.28	0.26	---	0.26	0.28	0.28	0.29
O18_p	0.29	0.30	0.29	0.19	0.22	0.21	0.21	---	0.21	0.25	0.27	0.27
O21_p	0.33	0.33	0.33	0.32	0.35	0.33	0.27	---	0.27	0.32	0.34	0.33
O22_p	0.25	0.26	0.26	0.22	0.25	0.24	0.23	---	0.23	0.24	0.25	0.25
O23_p	0.33	0.33	0.33	0.26	0.28	0.27	0.23	---	0.23	0.29	0.31	0.32
Total	**0.23**	**0.24**	**0.24**	**0.22**	**0.23**	**0.22**	**0.20**	**---**	**0.20**	**0.22**	**0.24**	**0.23**

9 Self-reported effort

Survey question: “How much did you work at providing the most accurate answers you can to the questions in this survey?” Answers on a scale 1 (not at all) to 5 (a great deal).

Table 9.1: Self-reported effort by device

Device	Mean	Median	St. dev.	N
PC	3.32	3	0.90	2239
Phone	**3.55**	4	0.89	1721
Total	3.42	3	0.91	3960

Table 9.2: Self-reported effort by experimental cell

Cell	Mean	Median	St. dev.	N
Standard	3.36	3	0.86	806
IBI scroll	3.39	3	0.93	805
IBI unfold	3.37	3	0.89	802
HSM	**3.47**	3	0.90	780
IBI paging	**3.52**	4	0.94	767
Total	3.42	3	0.91	3960

Table 9.3: Self-reported effort by experimental cell by device

Cell	Device	Mean	Difference (PC-phone)	N
Standard	PC	3.29	0.17	443
	Phone	3.46		363
IBI scroll	PC	3.29	0.24	455
	Phone	3.53		350
IBI unfold	PC	3.26	**0.26**	458
	Phone	3.52		344
HSM	PC	3.37	0.23	440
	Phone	3.60		340
IBI paging	PC	3.43	0.22	443
	Phone	3.65		324
Total	PC	3.32	0.23	2239
	Phone	3.55		1721

Self-reported effort: Smartphone respondents reported higher mean effort (3.55) than PC respondents (4.32). The difference between the devices was the lowest in the standard grid group and the highest in the IBI unfold experimental group. Overall, respondents in the IBI paging and HSM experimental groups reported the highest mean effort.

Table 9.4: Technical statuses by self-reported effort

	Not at all	A little	A moderate amount	A lot	A great deal	Total
5-Partial	1.2%	0.5%	0.3%	0.1%	0.2%	0.3%
6-Complete	98.8%	99.5%	99.7%	99.9%	99.8%	99.7%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9.5: Missing data indicators (means) by self-reported effort

	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
Not at all	0.01	0.00	0.01	0.01	0.99	0.99	**0.24**	0.00
A little	0.01	0.00	0.01	0.01	0.99	0.99	**0.22**	0.00
A moderate amount	0.00	0.00	0.00	0.01	0.99	1.00	**0.20**	0.00
A lot	0.00	0.00	0.00	0.01	0.99	1.00	**0.18**	0.00
A great deal	0.00	0.00	0.00	0.01	0.99	1.00	**0.17**	0.00
Total	0.00	0.00	0.00	0.01	0.99	1.00	**0.19**	0.00

Table 9.6: Missing data indicators (regression) by self-reported effort

	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
Adj. R^2	0.000	0.000	0.000	0.000	0.000	0.000	0.025	---
β	-0.017	-0.030	-0.025	-0.024	0.024	0.025	**-0.157***	---

*Statistically significant.

Comparing technical statuses shows that higher self-reported effort results in fewer breakoffs, but the difference is not statistically significant. The analysis of missing data indicators shows that higher self-reported effort results in a lower unit non-applicability level (UIL, β=-0.16).

Table 9.7: Timing (mean) by self-reported effort

	Mean	Median	Std. Deviation	Minimum	Maximum	N
Not at all	27.49	20.38	19.18	10.45	112.03	82
A little	26.61	22.49	15.62	10.23	112.32	396
A moderate amount	25.70	21.40	14.96	10.27	118.52	1517
A lot	26.29	21.64	16.18	10.03	118.87	1254
A great deal	27.70	23.15	16.46	10.50	118.53	415
Total	26.27	21.70	15.74	10.03	118.87	3664

Regression: adj. $R^2 = 0.000$; $\beta = 0.017$ (n. s.).

There seem to be no consistent differences in mean completion time according to the level of self-reported effort.

Table 9.8: Satisficing by self-reported effort

	SD (non-diff.)	Straightlining	Extreme %	Midpoint %
Not at all	0.93	0.08	0.37	0.22
A little	0.89	0.08	0.33	0.25
A moderate amount	0.87	0.08	0.33	0.25
A lot	0.89	0.07	0.34	0.24
A great deal	0.92	0.08	0.38	0.22
Total	0.88	0.08	0.34	0.24

	SD (non-diff.)	Straightlining	Extreme %	Midpoint %
Adj. R^2	0.001	0.001	0.007	0.007
β	0.042	-0.036	**0.084**	**-0.083***

*Statistically significant.

There seem to be no differences in satisficing in relation to self-reported effort. On the other hand, respondents who reported higher effort seem to have a slightly lower percentage of midpoint responses and a slightly higher percentage of extreme responses.

10 Self-reported burden

Survey question: “How burdensome was it to complete this survey?” Answers on a scale 1 (not at all) to 5 (extremely).

Table 10.1: Self-reported burden by device

Device	Mean	Median	St. dev.	N
PC	1.81	2	0.91	2237
Phone	**1.85**	2	0.93	1719
Total	1.83	2	0.92	3956

Table 10.2: Self-reported burden by experimental cell

Cell	Mean	Median	St. dev.	N
Standard	1.78	2	0.859	806
IBI scroll	1.68	1	0.87	804
IBI unfold	1.78	2	0.92	802
HSM	1.80	2	0.90	777
IBI paging	**2.11**	2	1.00	767
Total	1.83	2	0.92	3956

Table 10.3: Self-reported burden by experimental cell by device

Cell	Device	Mean	Difference (PC-phone)	N
Standard	PC	1.80	0.05	443
	Phone	1.75		363
IBI scroll	PC	1.66	-0.04	455
	Phone	1.70		349
IBI unfold	PC	1.73	**-0.12**	458
	Phone	1.85		344
HSM	PC	1.80	-0.01	437
	Phone	1.81		340
IBI paging	PC	2.08	-0.07	444
	Phone	2.15		323
Total	PC	1.81	-0.04	2237
	Phone	1.85		1719

Self-reported burden: Smartphone respondents reported slightly higher mean burden (1.85) than PC respondents (1.81). The difference between the devices was the lowest in the IBI scroll group and the highest in the IBI unfold experimental group. Overall, respondents in the IBI paging group reported the highest mean burden.

Table 10.4: Technical statuses by self-reported burden

	Not at all	A little	Moderately	Very	Extremely	Total
5-Partial	0.2%	0.2%	0.5%	1.0%	0.0%	0.3%
6-Complete	99.8%	99.8%	99.5%	99.0%	100.0%	99.7%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.5: Missing data indicators (means) by self-reported burden

	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
Not at all	0.00	0.00	0.00	0.01	0.99	1.00	**0.21**	0.00
A little	0.00	0.00	0.00	0.01	0.99	1.00	**0.19**	0.00
Moderately	0.00	0.00	0.00	0.01	0.99	1.00	**0.18**	0.00
Very	0.01	0.00	0.01	0.01	0.99	0.99	**0.16**	0.00
Extremely	0.01	0.00	0.01	0.02	0.98	0.99	**0.16**	0.00
Total	0.00	0.00	0.00	0.01	0.99	1.00	**0.19**	0.00

Table 10.6: Missing data indicators (regression) by self-reported burden

	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
Adj. R^2	0.000	0.000	0.000	0.000	0.000	0.000	0.020	---
β	-0.009	0.026	0.000	-0.002	0.002	0.000	**-0.141***	---

*Statistically significant.

Technical statuses cannot be compared by self-reported burden, as respondents who found survey burdensome likely quit before answering this question. The analysis of missing data indicators shows that higher self-reported burden results in a lower unit non-applicability level (UIL, β=-0.15).

Table 10.7: Timing (mean) by self-reported burden

	Mean	Median	Std. Deviation	Minimum	Maximum	N
Not at all	**24.76**	20.85	14.41	10.23	115.85	1753
A little	**27.38**	22.45	16.54	10.35	118.87	963
Moderately	**27.50**	22.73	16.52	10.03	118.53	834
Very	**30.26**	24.46	18.25	10.80	114.55	84
Extremely	**34.45**	27.55	23.93	11.43	104.23	28
Total	26.28	21.71	15.74	10.03	118.87	3662

Regression: **adj. R^2 = 0.009; β = 0.095 (sig.)**.

Higher self-reported burden results in longer completion times (β = 0.1); respondents with the highest burden take almost 10 minutes longer compared to the respondents reporting the lowest burden.

It should be noted that for now, raw completion times were used in the analyses (see Ch. 7).

Table 10.8: Satisficing by self-reported burden

	SD (non-diff.)	Straightlining	Extreme %	Midpoint %
Not at all	0.90	0.07	0.35	0.24
A little	0.87	0.07	0.33	0.25
Moderately	0.86	0.08	0.33	0.25
Very	0.90	0.07	0.36	0.23
Extremely	**0.86**	**0.12**	**0.37**	0.24
Total	0.88	0.08	0.34	0.24

	SD (non-diff.)	Straightlining	Extreme %	Midpoint %
Adj. R^2	0.006	0.001	0.002	0.001
β	**-0.079***	0.028	**-0.048***	**0.041***

*Statistically significant.

The highest levels of self-reported burden show more nondifferentiation, straightlining and extreme responses; however, these results are overall inconsistent due to the low number of units reporting high levels of burden.

11 Self-reported multitasking

11.1 Aggregate summary

Table 11.1: Multitasking summary (no/yes)

Multitasking	Frequency	Valid Percent	Cumulative Percent
No	2876	72.8	72.8
Yes	1074	27.2	100
Total	3950	100	
System	689		
	4639		

Table 11.2: Number of reported multitasking activities

	Multitasking, number
N	3950
Mean	0.43
Median	0
Minimum	0
Maximum	8
Percentiles	0

Table 11.3: Self-reported multitasking by device

Device	% Yes	N
PC	0.27	2237
Phone	0.28	1713
Total	0.27	3950

Table 11.4: Self-reported multitasking by experimental cell

Cell	Mean	N
Standard	0.27	804
IBI scroll	0.27	803
IBI unfold	**0.25**	801
HSM	0.27	778
IBI paging	**0.30**	764
Total	0.27	3950

Table 11.5: Self-reported multitasking by experimental cell by device

Cell	Device	Mean	Difference (PC-phone)	N
Standard	PC	0.27	0.00	444
	Phone	0.27		360
IBI scroll	PC	0.26	-0.02	455
	Phone	0.28		348
IBI unfold	PC	0.25	-0.02	458
	Phone	0.27		343
HSM	PC	0.24	**-0.07**	438
	Phone	0.31		340
IBI paging	PC	0.32	0.04	442
	Phone	0.28		322
Total	PC	0.27	-0.01	2237
	Phone	0.28		1713

Self-reported multitasking: The percentage of respondents reporting multitasking (MT) is about the same on PC and smartphone (27–28 %). The highest percentage of reported MT is in the paging group (30 %), and the lowest in the IBI unfold group (25 %). The largest difference between the devices in the percentage of reported MT is in the HSM experimental group.

Table 11.6: Technical statuses by self-reported multitasking

	Mean umber of MT activities
5-Partial	**0.50**
6-Complete	**0.43**
Total	0.43

Table 11.7: Missing data indicators (means) by self-reported multitasking

Multitasking	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
No	0.00	0.00	0.00	0.01	0.99	1.00	**0.20**	0.00
Yes	0.00	0.00	0.00	0.01	0.99	1.00	**0.18**	0.00
Total	0.00	0.00	0.00	0.01	0.99	1.00	0.19	0.00

Table 11.8: Missing data indicators (regression) by self-reported multitasking (mean number of MT activities)

	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
Adj. R^2	0.001	0.000	0.001	0.001	0.001	0.001	0.009	---
β	-0.033	0.002	**-0.033***	**-0.034***	**0.034***	**0.033***	**-0.095***	---

*Statistically significant.

Completes report 0.43 mean multitasking activities, while for partials the mean is 0.50. Comparing the means of missing data indicators by whether the respondents multitasked or not reveals no differences, except for UIL. On the other hand, linear regression modeling reveals that an increase in the mean number of multitasking activities contributes to an **improvement** in various missing data indicators.

Table 11.9: Timing (mean) by self-reported multitasking

MT	Mean	Median	Std. Deviation	Minimum	Maximum	N
No	**24.53**	20.92	13.79	10.03	115.85	24.53
Yes	**31.07**	25.20	19.37	10.33	118.87	31.07
Total	26.27	21.70	15.74	10.03	118.87	26.27

Regression (mean number of reported MT activities): **adj. R^2 = 0.049; β = 0.222 (sig.); B = 4.24**.

Self-reported multitasking results in longer completion times (31.1 minutes) vs. no reported multitasking (24.5 minutes). Furthermore, each additional reported multitasking activity increases the completion time by 4.2 minutes on average (linear regression modeling).
It should be noted that for now, raw completion times were used in the analyses (see Ch. 7).

Table 11.10: Satisficing by self-reported multitasking

MT	SD (non-diff.)	Straightlining	Extreme %	Midpoint %
No	**0.88**	**0.08**	0.34	0.24
Yes	**0.90**	**0.06**	0.34	0.24
Total	0.88	0.08	0.34	0.24

	SD (non-diff.)	Straightlining	Extreme %	Midpoint %
Adj. R^2	0.003	0.007	0.000	0.000
β	**0.054***	**-0.086**	-0.017	0.001

*Statistically significant.

Table 11.11: Multitasking by effort and burden

MT	How much did you work at providing the most accurate answers you can to the questions in this survey?	How burdensome was it to complete this survey?
No	3.44	1.79
Yes	3.38	1.91
Total	3.42	1.83

A higher mean reported number of multitasking activities results in slightly less nondifferentiation and straightlining. Those who reported multitasking also reported slightly lower effort, as well as higher burden.

11.2 Sequential vs. concurrent multitasking

Sequential multitasking:

* O42a Talking to someone else face-to-face
* O42d Using short messages (SMS), instant messaging, or e-mail
* O42e Using social networks
* O42f Visiting other websites
* O42g Playing games (computer, video, web)
* O42j Working on text documents, presentations, spreadsheets, or similar activities
* O42k Eating, drinking or preparing a meal
* O42l Households chores (cooking, cleaning, watching a child…)
* O42o Shopping and similar tasks (e.g. the bank, post office)

Concurrent multitasking:

* O42b Listening to another person's speech (e.g. being present at a lecture)
* O42c Having a conversation via phone or other device (includes video chat, e.g. Skype)
* O42h Listening to music, radio, podcasts or other audio content (e.g. TV in the background)
* O42i Watching TV or video content (such as movies, shows, news, YouTube clips)
* O42m Walking
* O42n Using means of transport (e.g. car, bus, train)

Table 11.12: Multitasking type by experimental cell by device

Cell	Device	Concurrent MT (% yes)	Sequential MT (% yes)	Any MT (% yes)
Standard	PC	**0.19**	0.13	0.27
	Phone	0.15	**0.16**	0.27
IBI scroll	PC	0.19	0.12	0.26
	Phone	0.19	**0.14**	0.28
IBI unfold	PC	0.15	**0.15**	0.25
	Phone	0.15	0.13	0.27
HSM	PC	**0.17**	0.11	0.24
	Phone	0.20	**0.15**	0.31
IBI paging	PC	**0.24**	**0.17**	0.32
	Phone	0.18	0.14	0.28
Total	PC	**0.19**	0.14	0.27
	Phone	0.18	0.14	0.28

Concurrent vs. sequential multitasking: A slightly higher percentage of PC respondents (19%) reported at least one type of concurrent multitasking compared to smartphone respondents (18%). There seems to be no overall difference between the devices for sequential multitasking. There are, however, some device differences within experimental cells. For example, for the standard grid group, more smartphone respondents reported at least one type of sequential multitasking, while more PC respondents reported at least one type of concurrent multitasking.

Table 11.13: Difference in means between multitaskers and non-multitaskers for missing data indicators

Multitasking	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
Concurrent MT (yes-no)	0.00	0.00	0.00	0.00	0.00	0.00	**-0.02**	0.00
Sequential MT (yes-no)	0.00	0.00	0.00	0.00	0.00	0.00	**-0.02**	0.00
Any MT (yes-no)	0.00	0.00	0.00	0.00	0.00	0.00	**-0.02**	0.00

There seems to be no difference in means between the types of multitasking on missing data indicators.

Table 11.14: Timing (mean) by self-reported multitasking type

MT	Mean	Median	Std. Deviation	Minimum	Maximum	N
Concurrent MT (yes-no)	4.96	3.78	3.45	0.30	0.34	-2362
Sequential MT (yes-no)	**9.04**	**6.23**	7.82	0.75	3.02	-2692
Any MT (yes-no)	6.54	4.28	5.58	0.30	3.02	-1712

Comparing multitasking type by timing shows that the mean completion time of those who reported sequential MT was 9 minutes longer compared to those who did not report sequential MT. In contrast, those who reported concurrent MT had 5 minute longer mean completion time vs. those who did not report concurrent MT.

It should be noted that for now, raw completion times were used in the analyses (see Ch. 7).

Table 11.15: Satisficing by self-reported multitasking type (difference in means between multitaskers and non-multitaskers)

MT	SD (non-diff.)	Straightlining	Extreme %	Midpoint %
Concurrent MT (yes-no)	0.02	-0.02	**-0.01**	0.00
Sequential MT (yes-no)	0.02	-0.02	**0.00**	0.00
Any MT (yes-no)	0.02	-0.02	0.00	0.00

Table 11.16: Multitasking type by effort and burden (difference in means between multitaskers and non-multitaskers)

MT	How much did you work at providing the most accurate answers you can to the questions in this survey?	How burdensome was it to complete this survey?
Concurrent MT (yes-no)	**-0.10**	0.14
Sequential MT (yes-no)	**0.00**	0.12
Any MT (yes-no)	-0.06	0.12

For any type of multitasking those who do report multitasking have a higher mean score (by 0.14) for self-reported burden (vs. those who did not report multitasking). In contrast, only those who reported concurrent MT have a lower mean score (-0.10) for self-reported effort (vs. those

who did not report concurrent MT). The mean score for sequential MT does not seem to differ between those who reported this type of multitasking vs. those who did not.

12 Number of activated alert prompts

Methodological note: For conditions where grids were not changed into individual questions – that is, grids in standard, IBI unfold, and HSM conditions – if a respondent tries to continue to the next page, alerts for all unanswered items are counted as triggered in paradata. This means that if a respondent answers 1 item in a grid of 10 items and tries to continue to the next page, 9 alerts will be counted as triggered.

Table 12.1: Alerts by device

Device	Mean	Median	St. dev.	N
PC	**1.11**	0.00	3.81	2412
Phone	**2.07**	0.00	5.89	2016
Total	1.55	0.00	4.89	4428

Table 12.2: Alerts by experimental cell

Cell	Mean	Median	St. dev.	N
Standard	**1.19**	0.00	2.93	896
IBI scroll	0.58	0.00	1.51	897
IBI unfold	0.72	0.00	2.37	880
HSM	**4.69**	1.00	9.32	875
IBI paging	0.60	0.00	2.23	880
Total	1.55	0.00	4.89	4428

Table 12.3: Alerts by experimental cell by device

Cell	Device	Mean	Difference (PC-phone)	N
Standard	PC	1.18	-0.03	481
	Phone	1.21		415
IBI scroll	PC	0.63	0.11	494
	Phone	0.52		403
IBI unfold	PC	0.58	-0.33	487
	Phone	0.91		393
HSM	PC	**2.67**	**-4.39**	473
	Phone	**7.06**		402
IBI paging	PC	0.56	-0.09	477
	Phone	0.65		403
Total	PC	1.11	-0.96	2412
	Phone	2.07		2016

Alerts: On average, more alerts were activated by smartphone respondents (2.1) compared to PC (1.1). By far the highest mean number of alerts was in the HSM experimental group (4.7 vs. the overall mean of 1.55). The difference between the devices was by far the most dramatic in the HSM group (7.1 for smartphone, 2.7 for PC).

Table 12.4: Missing data indicators (regression) by Alerts

	UIN	UBL	UBR	UTN	URR	UCL	UIL	UAQ
Adj. R^2	0.310	0.001	0.001	0.007	0.007	0.001	0.000	---
β	**0.557***	**-0.023**	**0.036***	**0.082***	**-0.082***	**-0.036***	-0.011	---

*Statistically significant.

In terms of missing data indicators, a higher number of activated alerts by the respondent is related to higher unit-level item nonresponse (R^2=0.31, β=0.557).

Table 12.5: Timing by Alerts

Adj. R^2=0.000	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	26.202	0.273		95.949	0
Reminders: n displayed	0.045	0.057	0.013	0.779	0.436

The number of activated alerts does not seem to affect completion time.

It should be noted that for now, raw completion times were used in the analyses (see Chapter 7).

Table 12.6: Satisficing by Alerts

	SD (non-diff.)	**Straightlining**	**Extreme %**	**Midpoint %**
Adj. R^2	0.009	0.011	0.004	0.002
β	**-0.096***	**0.104***	**-0.068***	**0.053***

*Statistically significant.

Regression modeling shows that a higher number of alerts affects satisficing indicators. Namely, a higher number of displayed alerts results in more nondifferentiation, more straightlining, fewer extreme responses, and more midpoint responses.

13 Open-ended responses

13.1 Aggregate summary

13.1.1 Number and length of open-ended answers (respondent-level)

Methodological note: Subsection 11.1.1 does not include the panel provider's follow-up question.

Table 13.1: Open-ended number by device*

Device	Mean	Median	St. dev.	N
PC	**0.06**	0.00	0.25	2108
Phone	**0.09**	0.00	0.32	1558
Total	0.07	0.00	0.29	3666

*Methodological note: the mean number of open-ended responses is calculated at the respondent-level across all five open-ended items in the questionnaire. Logical skips are here not differentiated from item nonresponse; any response to the open-ended item has the value of 1, all other situations have the value of 0. Thus, if a respondent entered text for one open-ended item (out of the five), the respondent-level mean number of open-ended responses equals 0.2. See subsequent subsections for a breakdown by items, which also considers item nonresponse and logical skips (i.e., branching).

Table 13.2: Open-ended length by device*

Device	Mean	Median	St. dev.	N
PC	11.88	8.50	15.15	120
Phone	11.48	**9.00**	9.14	133
Total	11.67	9.00	12.33	253

*Methodological note: the length of open-ended responses as the mean number of characters and is calculated only for answered items. Thus, the total N=253 is a consequence of excluding item nonresponse and skips due to branching.

Table 13.3: Open-ended by experimental cell

Cell	Mean number	Mean length
Standard	0.07	12.30
IBI scroll	**0.06**	**9.25**
IBI unfold	0.06	**14.87**
HSM	**0.11**	12.19
IBI paging	0.08	9.86
Total	0.07	11.67

Table 13.4: Open-ended by experimental cell by device

Cell	Device	Mean number	Difference (PC-phone)	Mean length	Difference (PC-phone)
Standard	PC	0.06	-0.03	12.20	-0.19
	Phone	0.09		12.39	
IBI scroll	PC	0.04	-0.04	9.64	0.68
	Phone	0.08		8.96	
IBI unfold	PC	0.05	-0.03	13.95	**-1.79**
	Phone	0.07		15.74	
HSM	PC	0.10	-0.02	12.82	**1.37**
	Phone	0.12		11.45	
IBI paging	PC	0.05	-0.06	9.71	-0.24
	Phone	0.11		9.95	
Total	PC	0.06	**-0.03**	11.88	**0.39**
	Phone	0.09		11.48	

Open-ended responses: The mean number of open-ended responses provided was higher on smartphone (0.09) than PC (0.06). The difference in length of open-ended answers was small overall across the devices. However, examining the experimental groups revealed some differences. Namely, the IBI unfold group's mean open-ended length was longer on smartphone by 1.8 characters, while in the HSM group the PC group's mean length was longer by 1.4 characters.

Table 13.5: Timing by Open-ended number

	Completion time
Adj. R^2	0.004
β	**0.068***

Table 13.6: Timing by Open-ended length

	Completion time
Adj. R^2	0.005
β	0.092

Respondents who provided more open-ended answers took longer, on average.

13.1.2 Respondent-level percentage of answers (1), item nonresponse (-1), and skips (-2)

Table 13.7: Open ended responses for all six open-ended items (mean percentage)

Exp. cell	Device type	Skipped question (IF logic)	Unanswered	Answered	Total
Std.	PC	80.9%	11.1%	**8.1%**	100.0%
	Phone	79.3%	14.6%	6.1%	100.0%
	Total	80.1%	12.7%	7.2%	100.0%
IBI scroll	PC	80.6%	11.7%	**7.6%**	100.0%
	Phone	79.2%	15.5%	5.3%	100.0%
	Total	80.0%	13.4%	6.6%	100.0%
IBI unfold	PC	80.9%	11.7%	**7.3%**	100.0%
	Phone	79.4%	13.7%	6.9%	100.0%
	Total	80.3%	12.6%	7.1%	100.0%
HSM	PC	80.2%	10.5%	**9.3%**	100.0%
	Phone	78.4%	15.8%	5.8%	100.0%
	Total	79.4%	12.9%	7.8%	100.0%
IBI paging	PC	80.6%	10.4%	**9.0%**	100.0%
	Phone	77.7%	15.9%	6.4%	100.0%
	Total	79.3%	12.8%	7.9%	100.0%
Total	PC	80.6%	11.1%	**8.2%**	100.0%
	Phone	78.8%	15.1%	6.1%	100.0%
	Total	79.8%	12.9%	7.3%	100.0%

The mean percentage of answered open-ended items in higher on PC (8%) than smartphone (6%). This difference is influenced by panel provider's follow-up open-ended question (see Sections 11.2.1–11.2.6).

13.2 Open-ended responses by text-entry items

13.2.1 Item O5l

O5 question wording: “Which social networking sites did you use in the last 12 months? (Multiple answers are possible)”

O5l Item wording: “Other, please specify:”

Table 13.8: Open-ended responses for item O5

Exp. cell	Device type	Skipped question (IF logic)	Unanswered	Answered	Total
Std.	PC	98.5%	0.0%	1.5%	100.0%
	Phone	98.2%	0.0%	**1.8%**	100.0%
	Total	98.3%	0.0%	1.7%	100.0%
IBI scroll	PC	98.7%	**0.2%**	1.1%	100.0%
	Phone	97.9%	**0.3%**	**1.8%**	100.0%
	Total	98.4%	**0.2%**	1.4%	100.0%
IBI unfold	PC	98.5%	0.0%	1.5%	100.0%
	Phone	98.1%	0.0%	**1.9%**	100.0%
	Total	98.3%	0.0%	1.7%	100.0%
HSM	PC	95.6%	0.0%	**4.4%**	100.0%
	Phone	98.2%	0.0%	1.8%	100.0%
	Total	96.8%	0.0%	3.2%	100.0%
IBI paging	PC	97.9%	**0.2%**	1.9%	100.0%
	Phone	97.3%	**0.3%**	**2.4%**	100.0%
	Total	97.6%	**0.2%**	2.1%	100.0%
Total	PC	97.8%	0.1%	**2.1%**	100.0%
	Phone	98.0%	0.1%	1.9%	100.0%
	Total	97.9%	0.1%	2.0%	100.0%

For item O5l (SNS use) the percentage of answered open-ended items was higher on smartphones compared to PCs in all experimental cells, except in the HSM (PC 4.4%, SP 1.8%).

13.2.2 Item O26e

O26 question wording: “In what country were you born?”

O26e Item wording: “Other country, please specify:”

Table 13.9: Open-ended responses for item O26e

Exp. cell	Device type	Skipped question (IF logic)	Unanswered	Answered	Total
Std.	PC	98.7%	0.2%	1.1%	100.0%
	Phone	98.1%	0.5%	**1.4%**	100.0%
	Total	98.4%	0.4%	1.2%	100.0%
IBI scroll	PC	97.6%	0.2%	**2.2%**	100.0%
	Phone	98.3%	0.0%	1.7%	100.0%
	Total	97.9%	**0.1%**	2.0%	100.0%
IBI unfold	PC	97.4%	0.4%	2.2%	100.0%
	Phone	97.1%	0.3%	**2.6%**	100.0%
	Total	97.3%	0.4%	2.4%	100.0%
HSM	PC	97.5%	0.5%	2.0%	100.0%
	Phone	97.7%	0.3%	**2.1%**	100.0%
	Total	97.6%	0.4%	2.0%	100.0%
IBI paging	PC	97.8%	0.7%	1.6%	100.0%
	Phone	97.6%	0.3%	**2.1%**	100.0%
	Total	97.7%	0.5%	1.8%	100.0%
Total	PC	97.8%	0.4%	1.8%	100.0%
	Phone	97.7%	0.3%	**2.0%**	100.0%
	Total	97.8%	0.4%	1.9%	100.0%

For item O26e (country of birth) the percentage of answered open-ended items was again higher on smartphones, with the exception of the IBI unfold experimental cell.

13.2.3 Item O38h

O38 question wording: “Where did you answer this survey? Please read all answers below and carefully select all that apply. (Multiple answers are possible)?”
O38h Item wording: “Somewhere else:”

Table 13.10: Open-ended responses for item O38h

Exp. cell	Device type	Skipped question (IF logic)	Unanswered	Answered	Total
Std.	PC	99.3%	0.0%	0.7%	100.0%
	Phone	97.2%	0.3%	**2.5%**	100.0%
	Total	98.4%	0.1%	1.5%	100.0%
IBI scroll	PC	99.3%	0.2%	0.4%	100.0%
	Phone	98.3%	**0.9%**	**0.9%**	100.0%
	Total	98.9%	0.5%	0.6%	100.0%
IBI unfold	PC	99.6%	0.0%	0.4%	100.0%
	Phone	98.8%	0.3%	**0.9%**	100.0%
	Total	99.3%	0.1%	0.6%	100.0%
HSM	PC	98.2%	0.5%	1.4%	100.0%
	Phone	97.4%	0.3%	**2.4%**	100.0%
	Total	97.8%	0.4%	1.8%	100.0%
IBI paging	PC	99.8%	0.0%	0.2%	100.0%
	Phone	98.8%	0.0%	**1.2%**	100.0%
	Total	99.3%	**0.0%**	0.7%	100.0%
Total	PC	99.2%	0.1%	**0.6%**	100.0%
	Phone	98.1%	0.3%	**1.6%**	100.0%
	Total	98.7%	0.2%	1.0%	100.0%

For item O38h (location of respondent) the percentage of answered open-ended items was profoundly higher on smartphones in all experimental cells (1.6% SP vs. 0.6% PC overall).

13.2.4 Item O42p

O42 question wording: “We would like to ask you about what you were doing while you completed this survey. Sometimes people are busy and need to do multiple things at a time. While you were completing this questionnaire, which of the following activities did you also engage in? (Multiple answers are possible)”

O42p Item wording: “Something else:”

Table 13.11: Open-ended responses for item O42p

Exp. cell	Device type	Skipped question (IF logic)	Unanswered	Answered	Total
Std.	PC	98.6%	0.2%	1.1%	100.0%
	Phone	98.7%	0.0%	**1.3%**	100.0%
	Total	98.9%	0.2%	0.9%	100.0%
IBI scroll	PC	98.4%	0.0%	1.6%	100.0%
	Phone	98.2%	0.2%	1.6%	100.0%
	Total	98.6%	0.1%	1.3%	100.0%
IBI unfold	PC	97.0%	0.6%	**2.5%**	100.0%
	Phone	98.0%	0.6%	1.4%	100.0%
	Total	97.1%	0.3%	2.6%	100.0%
HSM	PC	96.8%	0.0%	**3.2%**	100.0%
	Phone	97.2%	0.0%	2.8%	100.0%
	Total	97.2%	0.3%	2.5%	100.0%
IBI paging	PC	97.9%	0.4%	**1.7%**	100.0%
	Phone	98.4%	0.2%	1.4%	100.0%
	Total	98.1%	0.2%	1.6%	100.0%
Total	PC	97.7%	0.0%	**2.3%**	100.0%
	Phone	97.8%	0.1%	2.1%	100.0%
	Total	98.0%	0.2%	1.8%	100.0%

For item O42p (multitasking) the percentage of answered open-ended items was profoundly higher on PCs than on smartphones, which is to be expected due to easier multitasking on the PC.

13.2.5 Item SIdevice2d

SIdevice2 question wording: “Which of the following types of devices did you use to select answers to questions in this questionnaire? (Multiple answers are possible)”

Sidevice2d Item wording: “Other devices (please specify):”

Table 13.12: Open-ended responses for item SIdevice2d

Exp. cell	Device type	Skipped question (IF logic)	Unanswered	Answered	Total
Std.	PC	99.3%	0.0%	**0.7%**	100.0%
	Phone	99.7%	0.0%	0.3%	100.0%
	Total	99.5%	0.0%	0.5%	100.0%
IBI scroll	PC	99.6%	0.2%	0.2%	100.0%
	Phone	98.0%	0.0%	**2.0%**	100.0%
	Total	98.9%	0.1%	1.0%	100.0%
IBI unfold	PC	99.6%	0.2%	0.2%	100.0%
	Phone	98.8%	0.0%	**1.2%**	100.0%
	Total	99.3%	0.1%	0.6%	100.0%
HSM	PC	99.5%	0.0%	0.5%	100.0%
	Phone	97.9%	0.3%	**1.8%**	100.0%
	Total	98.8%	0.1%	1.0%	100.0%
IBI paging	PC	100.0%	0.0%	0.0%	100.0%
	Phone	96.9%	0.3%	**2.8%**	100.0%
	Total	98.7%	0.1%	1.2%	100.0%
Total	PC	99.6%	0.1%	0.3%	100.0%
	Phone	98.3%	0.1%	**1.6%**	100.0%
	Total	99.0%	0.1%	0.9%	100.0%

For item SIdevice2d (other respondent’s device) the percentage of answered open-ended items was typically higher on smartphones than on PCs.

13.2.6 Panel provider's follow-up item

This text entry item was displayed to respondents on completion of the survey. The panelists were invited to provide their opinion, feedback or any other type of comment that described their survey experience. **This text-entry item was defined within an open-ended question, which is contrary to the five text-entry items (11.2.1–11.2.5) that were defined as within half-open questions**.

Table 13.13: Open-ended responses for panel's follow-up question

Exp. cell	Device type	Skipped question (IF logic)	Unanswered	Answered	Total
Std.	PC	0.0%	60.4%	39.6%	100.0%
	Phone	0.0%	75.1%	24.9%	100.0%
	Total	0.0%	67.3%	32.7%	100.0%
IBI scroll	PC	0.0%	63.2%	36.8%	100.0%
	Phone	0.0%	79.1%	20.9%	100.0%
	Total	0.0%	70.4%	29.6%	100.0%
IBI unfold	PC	0.0%	64.2%	35.8%	100.0%
	Phone	0.0%	71.5%	28.5%	100.0%
	Total	0.0%	67.5%	32.5%	100.0%
HSM	PC	0.0%	57.6%	**42.4%**	100.0%
	Phone	0.0%	79.4%	20.6%	100.0%
	Total	0.0%	67.8%	32.2%	100.0%
IBI paging	PC	0.0%	55.9%	**44.1%**	100.0%
	Phone	0.0%	77.3%	22.7%	100.0%
	Total	0.0%	65.7%	34.3%	100.0%
Total	PC	0.0%	60.3%	**39.7%**	100.0%
	Phone	0.0%	76.5%	**23.5%**	100.0%
	Total	0.0%	67.7%	32.3%	100.0%

The panels' follow-up survey experience question was overall answered by 40% of PC respondents ant 23.5% of smartphone respondents.

13.2.7 Response length

Experimental cell	Device	O5l	O26e	O38h	O42p	SIdevice2d	pcomment
Standard	PC	7.00	9.80	14.00	21.20	12.33	**38.64**
	Phone	8.14	6.40	9.78	17.67	15.00	**25.80**
	Total	7.57	8.10	10.83	18.93	13.00	34.10
IBI scroll	PC	7.40	8.90	5.50	11.50	20.00	37.14
	Phone	8.86	9.33	8.67	14.40	6.71	36.67
	Total	8.25	9.06	7.40	12.82	8.38	36.99
IBI unfold	PC	5.86	8.80	14.50	37.50	6.00	33.64
	Phone	12.57	8.33	27.33	16.33	11.00	31.13
	Total	9.21	8.58	22.20	22.85	10.00	32.66
HSM	PC	6.35	12.22	9.67	17.29	69.00	32.59
	Phone	8.86	9.57	10.50	16.45	9.17	29.48
	Total	7.00	11.06	10.14	16.78	24.13	31.66
IBI paging	PC	7.56	10.14	8.00	16.00	---	**40.66**
	Phone	6.22	7.71	11.75	13.44	9.67	**33.73**
	Total	6.89	8.93	11.00	14.56	9.67	38.55
Total	PC	**6.71**	**9.93**	10.57	**19.24**	**28.71**	**36.64**
	Phone	8.78	8.35	**12.11**	15.81	9.19	31.18
	Total	7.61	9.21	11.59	17.19	13.21	34.82

13.2.8 Open-ended responses by items (cumulative)

Table 13.14: Mean percentage of respondents answering at least one or at least two open-ended items (panel provider's follow-up open-ended question is NOT included)

Experimental cell	Device	% answered 1+	% answered 2+
Standard	PC	0.04	0.00
	Phone	0.06	0.01
	Total	0.05	0.01
IBI scroll	PC	0.04	0.00
	Phone	0.06	0.00
	Total	0.05	0.00
IBI unfold	PC	0.05	0.00
	Phone	0.07	0.01
	Total	0.06	0.00
HSM	PC	0.08	0.00
	Phone	0.08	0.01
	Total	0.08	0.00
IBI paging	PC	**0.04**	0.00
	Phone	**0.09**	0.00
	Total	0.06	0.00
Total	PC	**0.05**	0.00
	Phone	**0.07**	0.01
	Total	0.06	0.00

Table 13.15: Mean percentage of respondents answering at least one or at least two open-ended items (panel provider's follow-up open-ended question is included)

Experimental cell	Device	% answered 1+	% answered 2+
Standard	PC	0.42	0.02
	Phone	0.29	0.03
	Total	0.36	0.02
IBI scroll	PC	0.40	0.02
	Phone	0.25	0.02
	Total	0.33	0.02
IBI unfold	PC	0.39	0.02
	Phone	0.33	0.03
	Total	0.36	0.02
HSM	PC	0.46	0.05
	Phone	0.27	0.02
	Total	0.37	0.04
IBI paging	PC	0.46	0.02
	Phone	0.28	0.03
	Total	0.38	0.03
Total	PC	**0.43**	0.03
	Phone	**0.29**	0.03
	Total	0.36	0.03

Analysis of the mean percentage of respondents that answered at least one open-ended item shows a difference between whether half half-open and open questions are considered. For the five open-ended text-entry items that are part of half-open questions, the mean percentage of respondents answering at least one item is higher on smartphones (7%) vs PCs (5%). If the mean percentage is calculated by considering the panel provider's open-ended item that was part of an open-ended question, then the mean percentage of respondents answering at least one item is higher on PC (43%) than on smartphone (29%).

14 Trap items

There were four trap items in questions O9 (frequency of visiting online shops) and O10 (frequency of making purchases on those web shops). The names of the following stores were made up in both questions:

- BigDeal
- iGoodDeal

Table 14.1: Trap items by experimental cell

Experimental cell	% never visited BigDeal	% never visited iGoodDeal	% never bought from BigDeal*	% never bought from iGoodDeal*
Standard	92.7%	96.0%	51.0%	50.0%
IBI scroll	93.2%	95.4%	61.2%	39.4%
IBI unfold	**95.4%**	**96.6%**	58.1%	**54.2%**
HSM	92.6%	95.2%	**66.7%**	50.0%
IBI paging	**95.3%**	**96.0%**	50.0%	33.3%
Total	93.8%	95.8%	57.3%	44.7%

* Only those who previously said they visited these sited (i.e., failed the trap for the first time) were then asked if they had ever bought any items.

Table 14.2: Trap items by device

Experimental cell	% never visited BigDeal	% never visited iGoodDeal	% never bought from BigDeal*	% never bought from iGoodDeal*
PC	**94.4%**	**96.5%**	**63.1%**	**48.4%**
Smartphone	93.2%	95.0%	51.0%	41.2%
Total	93.8%	95.8%	57.3%	44.7%

* Only those who previously said they visited these sited (i.e., failed the trap for the first time) were then asked if they had ever bought any items.

Trap items. Respondents in the IBI unfold and IBI paging performed best in the first stage of the trap items (whether fictitious sites were visited), but the differences between the cells are not dramatic. Overall, PC respondents dealt with trap items more successfully than smartphone respondents; 94% and 97% never visited BigDeal and iGoodDeal on PC, respectively, vs. 93% and 95% on smartphone.