

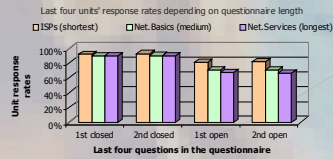
Effects of questionnaire length on response rates

Review of findings and guidelines for future research

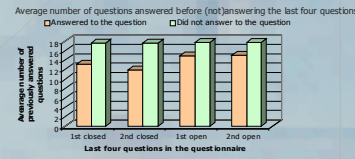
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Results

- Unit response rate is lower for longer questionnaires

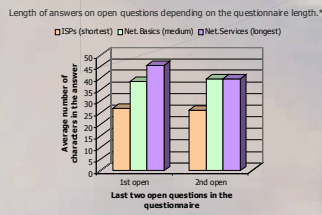


- No difference for closed questions ($p > .05$).
- Significant difference for open questions ($p < .001$).
- Possible explanation: answering open questions demands more effort; less motivated respondents simply quit.



- Across all three questionnaires, there was a significant difference ($p < .001$) in number of questions previously answered by the respondents who did and who did not answer the last four questions.
- This is in accordance with most findings for classic survey methods (for example Yammarino et al 91)

- Questionnaire length positively affects length of answers on open questions

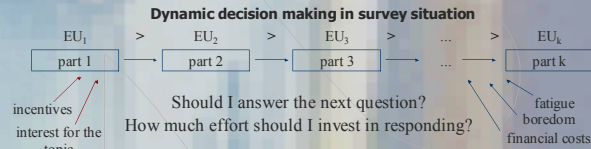


- This result is non-intuitive and opposite to the results for f2f surveys (Johnson et al, 74; Herzog & Bachman, 81). Possible explanation:
- Less motivated respondents quitted before arriving to the last two open questions.
- Those who stayed – especially in longer questionnaires – decided to invest more effort in responding in general, which reflected in their longer answers on open questions.

Further research is needed! If possible, based on a theoretical model...

2. Theoretical model of behavior in survey situation (in short!)

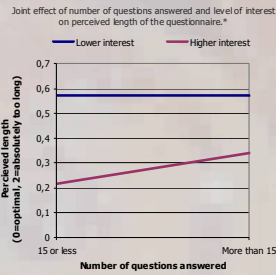
- Existing theories used in explanation of survey behavior (social exchange theory as proposed by Dillman, 1978; leverage-saliency theory by Groves, Singer, & Corning, 2000) are in essence based on expected utility model of decision making. Classic expected utility models imply that people make decisions in an impractically long and cumbersome way.
- In situations which are known, simple and whose consequences are not so important, people often choose «easier» ways of processing (heuristic, peripheral, affective, automatic), relying only on few attributes of the situation (Kahneman & Tversky, 1982; Groves, Cialdini, & Couper, 1992).



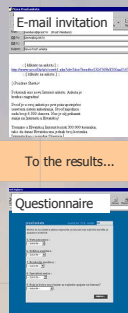
- After initial decision on participation in the survey, a sequence of additional decisions often occurs during the questionnaire completion. For each question, respondents can decide whether to answer and what amount of effort should they invest in answering it.
- If the respondents' perception of survey situation changes while completing the questionnaire, they can modify their initial decision and stop responding or reduce the level of effort invested in responding. In the same way, potential respondent who at first refused participation in a survey can often be convinced to convert this decision – for example, by use of additional monetary incentives.

End. Please take the handout!

- Perceived questionnaire length depends more on respondent's level of interest for survey topic than on actual number of questions answered



- Number of questions answered has effect on perceived length only when the level of interest in survey topics is high.
- The respondents who had lower interest in the topic judged the questionnaire equally long no matter of actual number of questions they answered.
- This result is in accordance with the studies on the effect of topic relevance on the data collected in mail surveys (Heberlein & Baumgartner, 78)



To the results...

1. Some observations of effects of questionnaire length in online surveys

Where? Croatia. Panel of 4500 Internet users built by Proof, an online research agency.

When? March 2001. 2 weeks.

What? Three questionnaires:

Topic	Length
1. ISPs	Shortest (M=15 questions, 3 were open)
2. Net.Basics	Medium (M=16 questions, 5,5 were open)
3. Net.Services	Longest (M=21 questions, 7 were open)

Sample? Panel members randomly assigned to one of 3 questionnaires ($N_{ISP}=2272$, $N_{Net.Basics}=1000$; $N_{Net.Services}=1000$). Ca. 48% of invited members answered at least the first question of each questionnaire.

What was observed? Last four questions (2 open, 2 closed) were equal for all questionnaires. Unit response rates and data quality were compared among the questionnaires of three lengths. Answers on the question about perceived length of the questionnaire (all closed questions) were also analyzed.

Start here

Intro...

Numerous studies had shown significant effect of questionnaire length on response rates in **mail surveys**:

- Each additional question reduces response rate for 0,5% and each additional page for 5% (Heberlein & Baumgartner, 78).
- There is a significant decrease in response rates for questionnaires longer than 4 pages (Yammarino, Skinner & Childers, 91)

The effect of questionnaire length in data collection techniques which include personal contact is less clear:

- In telephone surveys**, 14% of contacted sample refuses 40-minute interview and 9% refuses 20-minute interview (Collins et al, 88, in Bogen, 96).
- In face-to-face surveys** 61% of all refusals could be due to anticipated length (Burchell & Marsh, 92), but other researchers found similar refusal rates for interviews lasting 25 and 75 minutes (Frankel, 81)

Questionnaire length could have significant effect on response rates in online surveys.

Specifically, **online surveys**:

- bring direct financial costs to the participants (phone line)
- are often not suitable for use of the incentive types that proved to be the most useful motivators in classic surveys (immediate monetary reward, repeated contacts)
- do not include personal contact with the interviewer/researcher (less/no social pressure)
- have strong competitors in the fight for respondents' attention (various other interesting content on the Net)

Another important issue is possible negative effect of questionnaire length on **data quality**, suggested by several studies of classic survey methods (Burchell & Marsh, 1992; Helgeson & Ursic, 1994; Herzog & Bachman, 1981)

Method

There are still no studies on the effect of questionnaire length on response rates and/or quality of data in online surveys.

Therefore we:

- Examined unit response rates and quality of data in three online surveys** of different length, conducted simultaneously on a large panel of Internet users
- Suggested a draft theoretical model** which could be used in further research of the effects of questionnaire length and other characteristics of survey situation on response rates and quality of data

Aims...

References: Burchell, B. & Marsh, C. (1992). The effect of questionnaire length on survey response. *Quality and Quantity*, 26, 333-344. Collins, M., Selzer, M., Wilson, P., & Bachman, H. (1988). Responses to the 18 questions of the Survey of Attitudes Toward the Environment. *The Survey of Attitudes Toward the Environment*. Washington, DC: U.S. Environmental Protection Agency.

Groves, R., Singer, E., & Corning, A. (2000). Leveraging Saliency Theory of Survey Participation: Description and an Illustration. *Public Opinion Quarterly*, 64, 300-322. Heberlein, T. & Baumgartner, S. (1978). The effect of questionnaire length on response rates. *Journal of Applied Social Psychology*, 8, 145-162. Helgeson, J.G., & Ursic, M.J. (1994). The effect of questionnaire length on response rates in online surveys. *Public Opinion Quarterly*, 58, 475-490.

Herzog, A.B., & Bachman, S.G. (1981). Effects of questionnaire length on response rates. *Public Opinion Quarterly*, 45, 549-555. Johnson, W.R., Stebbins, H.H., & Couper, H.J. (1992). Effects of questionnaire length on response rates in a telephone survey. *Journal of Applied Social Psychology*, 22, 78-91. Yammarino, F.J., Skinner, D.J., & Childers, P.L. (1991). The effect of questionnaire length on response rates in a telephone survey. *Public Opinion Quarterly*, 55, 412-420.