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Effect of Design Elements on Response and Breakoff Rates in Web Surveys

Introduction

- Compared to mail survey mode which has more opportunities to affect response rates (e.g., quality of stationery, real signatures), e-mail invitations provide rather _limited visual features_ to encourage respondents to complete Web survey .

- Such design elements as _length of the invitation text_, _estimated survey duration_, and _subject line_ can have an effect on response and breakoff rates in Web surveys.

Method

- Full-factorial complete block design Web experiment among students, faculty, and administrative staff at National Research University Higher School of Economics, Russia.
- Fieldwork: October, 2012.
- Questionnaire: students – 72 questions, faculty – 109, staff – 87 questions.
- Median time: students – 11.5 min., faculty – 22.9 min., staff – 23.4 min.
- Number of invitations: students – 5 938 , faculty – 2 898, staff – 1 006.

Experimental Design*

Factors	Altern.	Students	Faculty	Staff
Subject line	Formal	Monitoring student life	Monitoring faculty life	Monitoring administrative staff
	Informal	Share your opinion – Help to make HSE better		
Estimated length	Short	About 10 minutes		
	Long	About 20 minutes		
Invitation length	Short	108 words	116 words	94 words
	Long	155 words	173 words	205 words

*2x2x2 factorial complete block design experiment

Hypotheses

Main effects:

H1. A "help" request: ↑ response rates (RR) and ↓ breakoff rates (BR).

H2.1. Short estimated survey duration (10 min.): ↑start rate and ↑ BR.

H3.1. Longer invitation text: ↑ RR and ↓ BR.

Interactions:

H2.2. A "help" request: ↑ RR and ↓ BR in the longer estimated survey duration. No effect in the short estimated survey duration.

H3.2. Longer invitation text: ↑ RR and ↓ BR in the longer estimated survey duration. No effect in the short estimated survey duration.

H3.3. A "help" request : ↑ RR and ↓ BR in the short invitation condition. No effect in the long invitation condition.
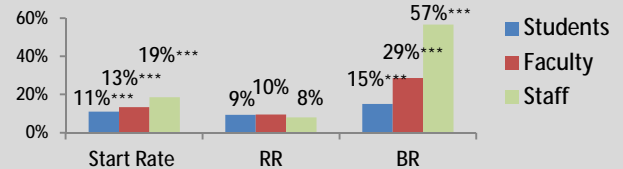
References:
1) Crawford, S.D., Couper, M.P., and Lamias, M.J. (2001). Web Surveys. Perceptions of Burden. _Social Science Computer Review_, 19, 146–162.
2) Kaplowitz, M. D., Lupi, F., Couper, M. P., & Thorp, L. (2012). The Effect of Invitation Design on Web Survey Response Rates. _Social Science Computer Review_, 30, 339-349.
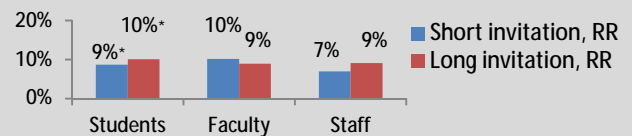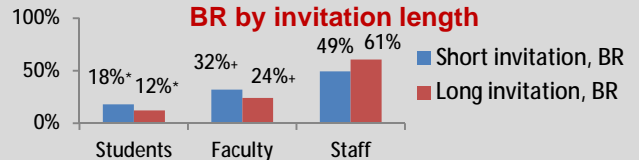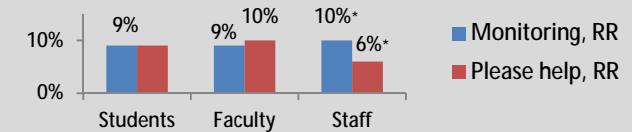
Results

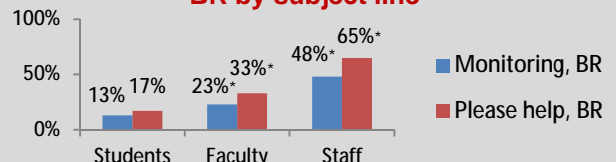### Overall RR and BR by groups

RR by invitation length

BR by invitation length

RR by subject line

BR by subject line

Chi-square tests: ***p<0.001, *p<0.05, + p<0.06

Summary

1. Contrary to H1: a "help" request↑ BR among staff and faculty and ↓ RR among staff.

2. Limited support for H2.1.: in the longer estimated survey duration ↓ BR among students.

3. Support for H3.1.: longer invitation ↓ BR among students and faculty, and ↑ RR among students.

4. Support for H2.2. Requesting help ↑ RR in the longer estimated survey duration among students. No effect in the short estimation.

5. Contrary to H3.2.: long invitation to the longer estimated survey ↓ RR and ↑ BR among staff. Long invitation to the short estimated survey ↑ RR among staff.

6. No support for H3.3.

Added Value

Previous research focused on analysis of _main effects_ (see Crawford et al., 2001; Kaplowitz et al., 2012). Our experiment shows that the _interaction effects_ between design elements might significantly influence RR and BR. The findings could help to understand what _interactions_ might _improve RR_ in Web surveys.