What are the most effective strategies of web-push in a probability-based panel?

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Background

- Design features of web-push methods in cross-sectional mixed-mode surveys
  - Sequential design > concurrent design (e.g. Dillman, Smyth, & Christian 2014; Dillman 2017)
  - Cash Incentives > higher web response (Messer & Dillman 2011; Biemer et al. 2017)
- Less attention has been paid to how web-push methods work in longitudinal studies
Research Questions

- What is an effective strategy to push respondents to *switch the survey mode* from mail to web?
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- What is an effective strategy to push respondents to switch the survey mode from mail to web?

- What is an effective strategy to push mail mode respondents to complete the web mode in a single wave?
Multi-Step Web-Push Process

- Mail Mode Panelists
- Web Mode Completion
- Web Switch Consent
- Web Mode Panelists

Panel Wave X
Panel Wave X+1
Multi-Step Web-Push Process

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Multi-Step Web-Push Process

1. Panel Wave X
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Panel Wave X
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Hypotheses

Single wave web completion

- Hypothesis 1: Offering the web mode sequentially results in a higher *web completion* than offering the web mode concurrently.
- Hypothesis 2: Offering a prepaid web-push incentive results in a higher *web completion* than offering a promised web-push incentive.

Long term web mode switch

- Hypothesis 3: Offering the web mode sequentially results in a higher *web mode switch* than offering the web mode concurrently.
- Hypothesis 4: Offering a prepaid web-push incentive results in a higher *web mode switch* than offering a promised web-push incentive.
Data: The GESIS Panel

- Open probability-based mixed-mode panel
- Around 5,700 panelists from three cohorts (October 2018)
  - Web-based surveys (approx. 67% of panelists)
  - Mail surveys (approx. 33% of panelists)
- Bi-monthly data collection
- Regular prepaid incentive: 5 EUR sent with each invitation letter
### Experimental Design

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H1 + H3: sequential > concurrent
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H1 + H3: sequential > concurrent
H2 + H4: prepaid > promised
Single Wave Web Completion

Condition 1: concurrent/promised (n = 632) - 18.0%
Condition 2: sequential/promised (n = 631) - 22.8%
Condition 3: sequential/prepaid (n = 633) - 21.2%
Hypothesis 1: Sequential > Concurrent

- **p-value for a one-tailed test:** $p = 0.02$
- **Holm-Bonferroni correction for multiple comparisons:** $p = 0.04$

*Note: The bar chart shows the proportion of respondents (%) across three conditions: Condition 1: concurrent/promised (18.0%), Condition 2: sequential/promised (22.8%), and Condition 3: sequential/prepaid (21.2%). The arrow connecting Condition 1 and Condition 2 indicates a significant difference ($4.8^*$).*
Hypothesis 2: Prepaid > Promised

- **Condition 1:** concurrent/promised
  - Proportion of Respondents: 18.0%

- **Condition 2:** sequential/promised
  - Proportion of Respondents: 22.8%

- **Condition 3:** sequential/prepaid
  - Proportion of Respondents: 21.2%

*p*-value for a one-tailed test: \( p = 0.76 \); Holm-Bonferroni correction for multiple comparisons: \( p = 0.76 \)
Final Web Mode Switch

- **Condition 1:** concurrent/promised (n = 632)
  - Remained in mail mode: 12.7%
  - Web mode switchers: 5.4%

- **Condition 2:** sequential/promised (n = 631)
  - Remained in mail mode: 16.5%
  - Web mode switchers: 6.3%

- **Condition 3:** sequential/prepaid (n = 633)
  - Remained in mail mode: 7.0%
  - Web mode switchers: 14.1%
Hypothesis 3: Sequential > Concurrent

- **Condition 1:** concurrent/promised
  - Proportion of Respondents (%): 12.7%

- **Condition 2:** sequential/promised
  - Proportion of Respondents (%): 16.5%
  - *p*-value for a one-tailed test: $p = 0.03$
  - Holm-Bonferroni correction for multiple comparisons: $p = 0.05$

- **Condition 3:** sequential/prepaid
  - Proportion of Respondents (%): 14.1%

* *p*-value for a one-tailed test: $p = 0.03$; Holm-Bonferroni correction for multiple comparisons: $p = 0.05
Hypothesis 4: Prepaid > Promised

$p$-value for a one-tailed test: $p = 0.88$; Holm-Bonferroni correction for multiple comparisons: $p = 0.88$
Conclusions

1. A considerable number of panel members who started in the mail mode was willing to switch to the web.

2. Prepaid incentives do not push more respondents into the web mode than promised incentives, neither for a single wave nor permanently.

3. A sequential approach is more effective than a concurrent approach to push respondents to complete a single survey in the web mode and finally switch to the web mode.

4. The mail mode is still needed since many respondents do not have web access or prefer to participate in the mail mode.
Thank you for your attention!

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Don Dillman   (Dillman@wsu.edu)
References I


