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ISSUES IN SURVEY RESEARCH

Mailed/Self-Administered Surveys

Web Surveys

Advantages of self administered surveys compared to interviews

- Lower costs
- Lower staff requirements
- Can survey complete listing of population
- Able to locate respondents (particularly for mail surveys most respondents have postal addresses)
- Decrease in social desirability bias

Disadvantages

- Requires an up-to-date roster/list/enumeration of units
- Lower response rates (see Dillman methods)
- No information or clues about non-respondents
- Types of questions constrained- complexity, open ended
- No control of sequence or administration
- Literacy of respondents is an issue
- Full implementation requires time

Total Design Method (Dillman)

- Integrated approach to decrease errors in representation and measurement
- Theory poses that recipient more likely to respond if perceive:
 - Low costs (ease and burden)
 - High rewards (interest, enjoyment, altruism)
 - Reason to trust (sponsorship, protections)

TDM Recommendations

- Format of instrument
 - Attractive
 - Booklet (maybe with a nice cover)— warning DO NOT put questions on last back page—short 12 page
 - Color of instrument
 - Stamped return envelope
- Mailing
 - Personalized--stamps
 - Verify the list— spelling of names, etc.—can link with prior notice

Instrument Construction

- Question order
 - Most important to least important related to topic of survey
 - First question-neutral, applies to everyone, interesting to everyone
 - Questions grouped based on similar content
 - Take into account cognitive ties that respondents make between items
 - Objectionable questions should be placed after less objectionable questions

- Format

- Lower case letters for questions, upper case letters for answers
- Establish a vertical flow
- Provide navigational guides
- Directions for how to answer
- Booklet
- Thank you

Implementing Mail Surveys

- Follow- up sequence -Donald Dillman
 - Postcard sent to everyone
 - Three-weeks- letter and replacement questionnaire to non-respondents
 - Seven weeks-letter and replacement questionnaire sent by certified mail
- Alternatives
 - Telephone interview at 7 weeks
 - Incentives

Web Surveys

Advantages

- Cost
- Specially suited to list samples with known email addresses
- Less item non-response
- Applications available to customize surveys-like survey monkey

Disadvantages

- How to avoid non-probability samples
- Difficult to distinguish between good and bad survey responses
- Non-response can be black box
- Proliferation of surveys may result in declining participation rates
- Variations in platforms, software among respondents

Sources of Error with Web

- Coverage
 - Not everyone in the target population is in the frame population
 - How to construct a frame population-all web users
 - Households have multiple email addresses
- Estimates of Web penetration-75%

Bias: Demographic Characteristics of Users

- Households with incomes \$75,000+ are 20 times more likely to access Internet than those at lowest income levels
- African American and Hispanic households 2/5 as likely to access Internet than Whites
- Over represented groups are males, college graduates, and adults 25 years of age and younger

Types of Web Surveys

- Non Probability
 - Polls, collective opinion of those who chose to participate
 - Unrestricted self-selected surveys- no access restrictions and no or little control over multiple completion e.g. magazine polls
 - Volunteer panels of Internet users- large data base is created of users, including selected demographic characteristics- by invitation and controlled through email and passwords

- Probability

- Intercept surveys-systematic sampling of every nth visitor to a site to participate in the survey-customer satisfaction
- List based samples of high coverage populations-frame is build from known list i.e. students, patients. Invitation is done through email.

Non response error

- Denominator of those eligible to participate is not often known
- When known, response rates tend to be lower than mailed surveys -40%- electronic motivation is difficult
- Technical difficulties in interacting with Internet survey- slow modem
- Concerns about confidentiality

- Measurement error
 - Format, appearance of survey can vary from respondent to respondent due to different browser settings , variations in hardware
 - Little work on the optimal design for web survey- subgroups- teenage girls, seniors
 - Computer literacy- designed for the least sophisticated user

Dillman's Principles for Email Surveys

- Use a multiple contact strategy to elicit response e.g. pre-notice email message
- Personalize email contacts
- Keep cover letter brief to get to first question before having to scroll down a page
- Include a replacement questionnaire with reminder

Dillman's Principles for Web Surveys

- Introduce web questionnaire with a welcome screen
- Provide a PIN number for limiting access only to people in the sample
- Chose a first questions that is interesting to most respondents, easily answered, and fully visible on the welcome screen

Table 2. Response Options Offered for Each Treatment Group in Experiment 1, by Date and Mode of Contact^a

Treatment group (<i>n</i>)	Feb 13: Postal invitation	Feb 18: Email augmentation	Feb 20: Postal thank you/reminder	Mar 6: Replacement	Mar 10: Email augmentation	Apr 6: Mode switch letter
1. Choice (700)	Mail/Web		Mail/Web	Mail/Web		Mail/Web
2. Mail (700)	Mail		Mail	Mail		Web
3. Web (700)	Web		Web	Web		Mail
4. Web + email augmentation (700)	Web	Web	Web	Web	Web	Mail

^a“Mail” indicates that response was requested by mail; “Web” indicates that response was requested by Web.

Millar, M. M., Dillman, D. A. (2011). Improving response to web and mixed-mode surveys. *Public Opinion Quarterly* 75:249-269

Methods

- Conducted between 2/13/2009 and 4/22/2009
- Random sample of 2,800 undergrads at Washington State University
- Utilized paper and online versions
- Web and paper questionnaires were constructed similarly to minimized differences

Results

Table 3. Experiment 1 Primary Response Rates and Increase in Response after Switching Modes in Final Contact, by Treatment Group

	Primary response rate (before mode switch) ^b	Increase after mode switch ^c	Final response rate ^b	Tests of mode switch effects ^d
Treatment (sample size) ^a	%	%	%	z
1. Choice (669)	47.7	4.6	52.3	
2. Mail (681)	51.3	1.9	53.2	0.69
3. Web (676)	42.3	7.8	50.2	2.89**
4. Web + email augmentation (678)	59.7	4.7	64.5	1.80*

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Overall findings

- Simultaneous choice of modes does not enhance response rate
- Combination of multiple mail & email contacts works best
- Token cash in advance increases response (can't deliver this by email)