

Web-Based Survey Design

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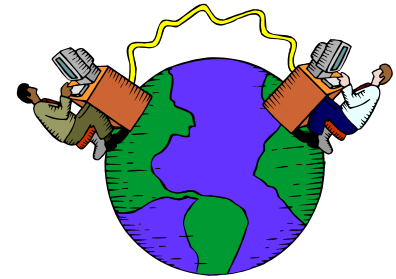
Computer Based Issues



- Coverage
- Effects of computer hardware and software
- Computer literacy
- Computer logic versus survey logic

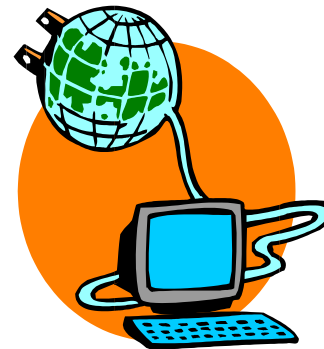
Positives

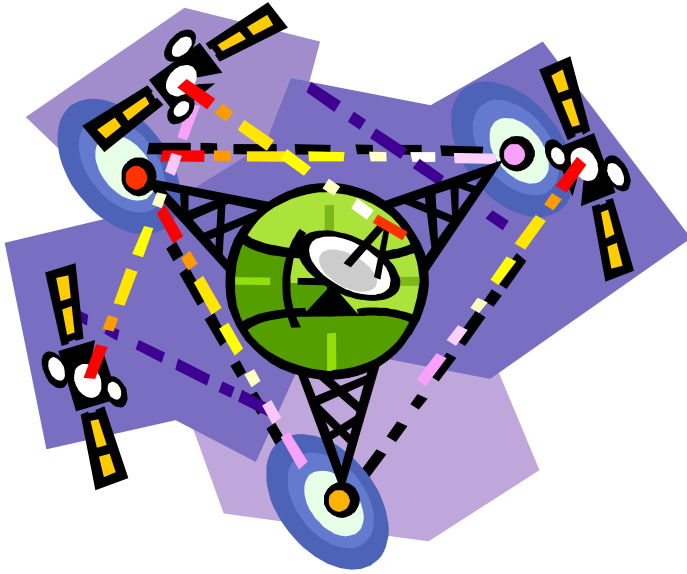
- Ease of administration
- Fast response time
- Lower cost
- Direct data entry
- Increased attractiveness may improve willingness of respondents to complete survey



Negatives

- Coverage limited to those with internet access
- Time and expense in providing help desk
- Security - without password protection anyone may respond

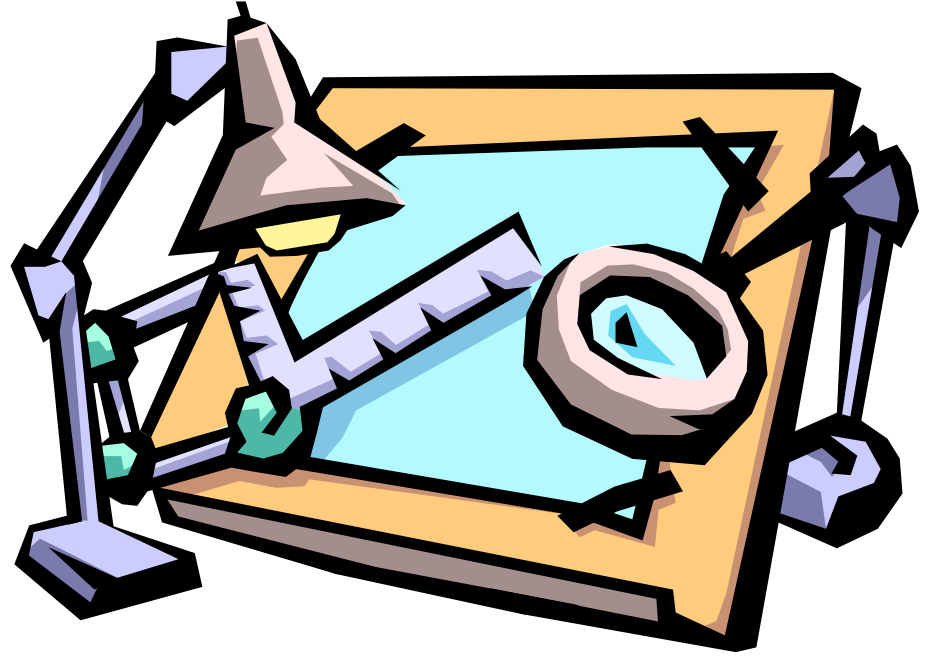




When to go Web-based¹

- You can use a convenience sample
- Your population is self-contained
- You have e-mail addresses
- Sample size is relatively large
- You want to use multimedia elements (opt)

Basic
Design
Principles^{2,3}



Web Survey Design Principles

1. Provide a password to limit access to those in the sample
2. Introduce the web survey with a motivational welcome screen
 - Emphasize ease of responding
 - Informs respondents how to proceed

Web Survey Design Principles

3. The first question should fit entirely on the screen at the top of the questionnaire.
4. Present questions like they would appear on paper surveys (conventional appearance)

Web Survey Design Principles

5. Consider variations that may appear due to differences in software, browsers, smaller screens
6. Provide very specific directions how to take each computer-related action *at the point it is needed*

Web Survey Design Principles

7. Limit the line length of each question so that questions don't extent the full width of the screen
8. Restrain the use of color – maintain readability and measurement properties

Web Survey Design Principles

9. Use “drop-down” boxes sparingly & limit matrix-type questions

10. Do not require individuals to respond to a given question before they can answer the questions that follow

Web Survey Design Principles

11. Provide skip directions while encouraging individuals to answer each question
12. Construct the web survey so that respondents can scroll from question to question

Web Survey Design Principles

13. Provide some indicator of survey completion progress
14. Keep graphics to a minimum – they increase loading time
15. Automate skips & inform respondents; may consider validating input

Response Rates⁴

Response Rates based on review of published survey results

- Previous research suggests average response rates at 55-65% for paper-pencil surveys.
- With careful attention to design, 70% can be achieved consistently.
- Others suggest that returns less than 40-50% are common on mail surveys

Web Return Rates⁴

A meta-analysis of web survey reports (N=68)

- Mean response rate was 40% ($SD=20\%$)
- Survey response rate was improved by
 - # of contacts
 - personalized contact
 - prenotification letter, message
 - issue salience
- No relationship found between survey length or password requirements and response rates

Options & Resources



- Web-page Authoring Software
- Web-page Data Entry forms submitted as e-mail
- Online Survey Hosting Companies
- E-mail surveys
 - Imbedded in e-mail message
 - Attached surveys

References

1. Schonlau, M., Fricker, Jr., R.D., & Elliott, M. N. (2002). *Conducting research surveys via e-mail and the web*. Santa Monica, CA: Rand.
2. Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method*. New York: John Wiley & Sons, Inc.
3. Dillman, D. A., Tortora, R. D., & Bowker, D. 1998. *Principles for Constructing Web Surveys*. SESRC Technical Report 98-50, Washington State University. Available online at:
<http://survey.sesrc.wsu.edu/dillman/papers/websurveyppr.pdf>
4. Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web-or internet-based surveys. *Educational and Psychological Measurement*, 60(6), 821-836.