

## Some Thoughts on Writing Questions

Adapted from the work of Don A. Dillman

When designing a survey, put yourself in the mindset of those you plan to survey. Right from the start and then throughout the survey, you have got to motivate respondents to agree to take the survey, read every word, answer the questions and complete the entire survey. To keep them motivated (and avoid discouraging or turning them off), think about how the wording, sequencing and construction of the questionnaire will strike them:

1. Does the question really require an answer, or is it fairly obvious or already known? (This is a turn-off)
2. To what extent can survey recipients provide an accurate, ready-made answer? (If it is too hard or beyond their knowledge set, this can discourage them from continuing)
3. Can people accurately recall and report past behaviors? (Don't make them guess because they can't remember the facts well enough)
4. Will respondents be willing to reveal the requested information? (Frame sensitive issues in a way that seems less personal and indicates why you need to know)
5. Will respondents feel motivated to answer each question? (Make it easy for them to do so.) Consider:
  - How hard will respondents be willing to work to comprehend the question?
  - How much will respondents be willing to do to retrieve needed information?
  - How hard will respondents be willing to work to make a judgment?
  - How much effort will respondents be willing to make to report (state) their answers?

Remember, people will only be willing to spend a finite amount of cognitive energy to complete the survey. Once their time and effort limit is expended, you are out of luck!

When it comes to survey design and construction, enable respondents to succeed by anticipating their questions:

### Comprehension

(Cognitive)

- Where is the question on this page?
- Where are the answer choices?
- In what order do I read this information?

(Motivational)

- How hard is it to figure out what the question is asking?
- How many parts does it have?
- Do I have to go somewhere else to figure out exactly what is being asked?
- How much mental energy will it take for me to understand and answer this question?
- How important is it to me to answer this question?

### Retrieval

- Once I understand the question, can I provide the answer from memory?
- Do I need to check some records?

### Judging

- What constitutes a satisfactory answer?
- Can it be "close enough" or does it need to be exact?
- Do units of measurement have to be converted?
- Do the response choices make sense?
- Do the response choices fit what I want to answer?

### Reporting

- Where do I provide the answer on this page?
- Is it clear where an answer is supposed to go?

# Dillman's Principles for Questionnaire Construction

Derived from: Dillman, D.A. (2007) *Mail and Internet Surveys: The Tailored Design Method, 2<sup>nd</sup> Ed.*, New Jersey: Wiley.

**STEP 1:** Define a desired navigation path for reading all information presented on each page of the question.

- Write each question in a way that minimizes the need to reread portions in order to comprehend the response task.
- Place the instructions exactly where that information is needed and not at the beginning of the questionnaire.
- Place items with the same response categories into an item-in-a-series format, but do it carefully.
- Ask one question at a time.
- Minimize the use of matrices.

**STEP 2:** Create visual navigation guides and use them in a consistent way to get respondents to follow the prescribed navigational path and correctly interpret the written information.

- Increase the size of written elements to attract attention.
- Increase the brightness or color (shading) of visual elements to attract attention and establish appropriate groupings.
- Use spacing to identify appropriate groupings of visual elements.
- Use similarity to identify appropriate groupings of visual elements.
- Maintain a consistent figure/group format to make the response task easier.
- Maintain simplicity, regularity, and symmetry to make the response task easier.
- Begin asking question in the upper left quadrant; place any information not needed by the respondent in the lower right quadrant.
- Use the largest or brightest symbols to identify the starting point on each page.
- Identify the beginning of each succeeding question in a consistent way.
- Number questions consecutively and simply from beginning to end.
- Use a consistent figure/background format to encourage the readings of all words.
- Limit the use of reverse print to section headings or question numbers.
- Place more blank space between questions than between subcomponents of questions.
- Use dark print for questions and light print for answer choices.
- Place special instructions inside of question numbers and not as freestanding entities.
- Optional or occasionally needed instruction should be separated from the question statement by font or symbol variations.
- Do not place instructions in a separate instruction book or in a separate section of the questionnaire.

- Use of lightly shaded colors as background fields on which to write all questions provides an effective navigational guide to respondents.
- When shaded background fields are used, identification of all answer spaces in white helps to reduce non-response.
- List answer categories vertically instead of horizontally.
- Place answer spaces consistently to either the left or right of category labels.
- Use numbers or simple answer boxes for recording of answers.
- Vertical alignment of question subcomponents among consecutive questions eases the response task.
- Avoid double or triple banking of answer choices.
- Maintain spaces between answer choices that are consistent with measurement intent.
- Maintain consistency throughout a questionnaire in the direction scales are displayed.
- Use shorter lines to prevent words from being skipped.

STEP 3: Develop additional visual navigational guides, the aim of which is to interrupt established navigation behavior and redirect respondents.

- Major visual changes are essential for gaining compliance with skip patterns.
- Words and phrases that introduce important, but easy to miss, change in respondent expectation should be visually emphasized consistently, but sparingly.
- Major visual changes are essential for gaining compliance with skip patterns.

# Dillman's Principles for Web Questionnaire


Derived from: Dillman, D.A. (2007) *Mail and Internet Surveys: The Tailored Design Method*, New Jersey: Wiley.

1. Introduce the Web questionnaire with a welcome screen that is motivational, emphasizes the ease of responding, and instructs respondents about how to proceed to the next page.
2. Provide a PIN number for limiting access only to those in the sample.
3. Begin the Web questionnaire with a question that is fully visible on the first screen of the questionnaire, and will be easily comprehended and answered by all respondents.
4. Present each question in a conventional format similar to that normally used on paper self-administered questionnaires.
5. Restrain the use of color so that figure/ground consistency and readability are maintained, navigational flow is unimpeded, and measurement properties of questions are maintained.
6. Avoid differences in the visual appearance of questions that result from different screen configurations, operating systems, browsers, partial screen displays, and wrap around text.
7. Provide specific instructions on how to take each necessary computer action for responding to the questionnaire and give other necessary instructions at the point where they are needed.
8. Use drop-down boxes sparingly, consider the mode implication, and identify each with a "click here" instruction.
9. Do not require respondents to provide an answer to each question before being allowed to answer any subsequent ones.
10. Provide skip directions in a way that encourages marking of answers and being able to click to the next applicable question.
11. Construct Web questionnaires so they scroll from question to question unless order effects are a concern, or when telephone and Web survey results are being combined.
12. When the number of answer choices exceeds the number that can be displayed in a single column on one screen, consider double-banking with an appropriate grouping device to link them together.
13. Use graphical symbols or words that convey a sense of where the respondent is in the completion process, but avoid those that require significant increases in computer resources.
14. Exercise restraint in the use of question structures that have known measurement problems on paper questionnaires, such as check all that apply and open ended questions.

From Don A. Dillman. 2007. *Mail and Internet Surveys: The Tailored Design Method, 2nd ed.* Hoboken, NJ: John Wiley & Sons.

**Figure 4.2** Example of cover letter (second contact) to sample of new state residents; to follow preletter.

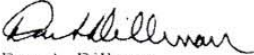
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<b>Date</b>	→ July 8, 1999
<b>Inside address</b>	→ L. T. Hansen 2121 Lincoln Way East Uniontown, WA 99962-2056
<b>The request</b>	→ I am writing to ask your help in a study of new residents being conducted for the state of Washington. This study is part of an effort to learn what draws people to the state, and whether they are happy or unhappy with what they find here.
<b>Why you were selected</b>	→ It's my understanding that you may have moved to Washington state sometime in the last few years. We are contacting a random sample of new residents from every county in the state to ask why they moved, what their employment experience has been, and whether services are meeting their needs.
<b>Usefulness of survey</b>	→ Results from the survey will be used to help state and local government make Washington a better place for new residents like you. By understanding what people want when they move here, public officials can do a better job providing services and improving the state's quality of life. And by knowing more about the job skills of new residents, public agencies and private businesses can help make the most of what new residents contribute to the state's economy.
<b>Confidentiality</b>	→ Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. When you return your completed questionnaire, your name will be deleted from the mailing list and never connected to your answers in any way. This survey is voluntary. However, you can help us very much by taking a few minutes to share your experiences and opinions about Washington state. If for some reason you prefer not to respond, please let us know by returning the blank questionnaire in the enclosed stamped envelope.
<b>Token of appreciation</b>	→ We have enclosed a small token of appreciation as a way of saying thanks for your help.
<b>Willingness to answer questions</b>	→ If you have any questions or comments about this study, we would be happy to talk with you. Our toll-free number is 1-800-833-0867, or you can write to us at the address on the letterhead.
<b>Thank-you</b>	→ Thank you very much for helping with this important study.
<b>Real signature</b>	→ Sincerely,  Don A. Dillman Professor and Deputy Director

P.S. If by some chance we made a mistake and you have not moved to Washington (or back to Washington after living somewhere else) since January 1990, please answer only the first question in the questionnaire and return the rest of it blank. Many thanks.