Checklists for Questionnaire Designers and Reviewers

Introduction

This guidance contains two checklists prepared by the CDMA Questionnaire Improvement Team. The first, the questionnaire design checklist, suggests ways to deal with questionnaire design issues often encountered in GAO self-administered surveys. The second, the checklist for Web questionnaire functionality testing, is a list of issues to check for during functionality testing of deployed Web-based questionnaires.

Prior to developing or conducting a peer review of a self-administered paper or Web-based questionnaire, CDMA staff should familiarize themselves with these issues.

The checklist includes practices that experts and a team of GAO questionnaire designers believe are best to obtain high-quality questionnaire data. While we are confident that these practices represent good advice in most situations, not all of them should be considered to be universal rules. Your experience and judgment should be applied in each situation.

I. Questionnaire Design Checklist

A. Broad Themes to Keep in Mind When Designing or Reviewing a Questionnaire

When developing or reviewing a questionnaire, we suggest that you always keep the following three themes in mind: consistency, economy, and clear visual design.

1. ☐ **Consistency:** Use words, numbers, symbols, and format elements consistently throughout a questionnaire. Check that fonts, spacing, indentation, shading, underlining, the numbering or labeling of questions and response options, skip pattern formatting, and instruction placement within question stems are consistently applied throughout the questionnaire.

2. ☐ **Economy:** Questionnaires should be as short and direct as possible. Question stems should be worded as concisely as possible and redundant or unnecessary instructions should be avoided. The goal is that respondents understand each question quickly.

3. ☐ **Clear visual design:** Questionnaires should be visually designed in a manner that leads respondents to focus on what they need to read. The format should increase the chances that respondents will take the desired path through the entire survey. The goal of good visual design is to reduce respondent burden and in so doing to reduce errors.

Next, we suggest that when developing or reviewing questionnaires you make use of the checklist's next six categories: Format and visual design, Questionnaire Introduction, Instructions, Navigation, Questions, and Answers. During this analysis, designers and reviewers should also focus on the more basic issues of whether the questions and answers are logical and easily understood.

B. Format and Visual Design

4. **Questionnaire formatting should be consistent**

   4.1. ☐ **Columns:** If possible, avoid switching between 1-column and 2-column formats, especially on the same page.

   4.2. ☐ **Fonts:** Strive to consistently assign bold, italic, shading, underlining, font type and font size each to one purpose (for example: one format for instructions, another for section headings, another to add emphasis within questions, etc.).

   4.3. ☐ **Alignment:** Be consistent with spacing and indentation. Questionnaire components such as banks of answers or the left edges of matrixes should be aligned consistently throughout the questionnaire.

5. ☐ **Underlining in electronic surveys should be avoided:** Attempt to avoid underlining in Web or Word electronic questionnaires for emphasis since it can be confused with underlined hyperlinks.

6. **Question numbering or labeling should be simple, consistent, and obvious**

   6.1. ☐ **Question numbering should be simple:** Avoid complicated multi-level character or number question identifiers. (For example: avoid "1.B.", "(2) a.", etc.).

   6.2. ☐ **Numbering or labeling should be consistent:** Use a consistent numbering or labeling scheme for questions, question sub-parts, and matrix rows throughout the questionnaire. (For example: consistently label matrix rows a., b., c., etc.)

   6.3. ☐ **Mark the start of the question:** Draw attention to the beginning of each question stem with an identifier (usually the question number) and consider visually highlighting it by indenting the stem or using bold fonts for the question numbers.

7. **Matrixes:**

   7.1. ☐ **Column widths:** Column widths for matrix questions should be equal.

   7.2. ☐ **Column labels:** The text for column labels for matrix questions should be centered in each column, directly over answer boxes or radio buttons.

   7.3. ☐ **Header row:** In a paper questionnaire, repeat the column labels within a long matrix if the matrix continues for more than one page. In a Web questionnaire, repeat the header rows for long matrices so the header won't go off the top of the screen (for example, every 6 or 7 rows).

C. Questionnaire Introduction

8. ☐ **Remove nonessential introduction material.** Overly long material often includes:

    8.1. ☐ **Content of the questionnaire:** One sentence on content is usually enough. Avoid listing the questionnaire sections. Also, avoid discussing what is not covered.

    8.2. ☐ **Background of GAO request:** One sentence is usually enough. Consider omitting requestors' names or committees.

    8.3. ☐ **How to fill out questions, navigate and return the questionnaire:** May need to be briefly described in a mail questionnaire. *For Web Questionnaires* - Consider moving this information into popup boxes accessible through hyperlinks.

9. ☐ **Minimize number of welcome and information screens:** *For Web Questionnaires*—Minimize the number of screens respondents must click through before getting to the first question.

10. ☐ **Provide GAO contacts:** Provide email addresses and telephone numbers of GAO staff (usually two or more) whom respondents can contact for help.

11. ☐ **Respondent selection:** If a person other than an explicitly named respondent may be completing the questionnaire, define criteria and then provide instructions or other means for identifying and directing the questionnaire to that person. If it is likely that another person will be completing the questionnaire, add a question that identifies the actual respondent.

12. ☐ **Provide an eligibility check:** If there is any possibility of mailing errors or ineligible sample elements in the contact list, confirm that the contact person is eligible with one or more questions.

13. ☐ **Confidentiality:** Check any confidentiality-related statement to see that it conforms to the criteria in the GAO Policy Manual or commonly accepted practice. Contact Carl Ramirez for assistance. (Questionnaire designers: Consider whether the survey warrants a confidentiality statement. If so, make sure the engagement team has the confidentiality statement approved by OGC and that appropriate Congressional approval has been received if link-breaking or destruction of identifying information is part of the proposed protocol.)

D. Instructions

14. ☐ **Place instructions where needed:** Place question specific instructions and definitions in the first question where they are needed. A glossary can be included, but respondents may not to refer to it if it is in another location. *For Web Questionnaires* – Consider placing definitions in popup boxes accessible through hyperlinks.

15. ☐ **If possible, place instructions in questions:** Consider making critical instructions part of the question stem instead of separating them in separate paragraphs, boxes or instruction areas.

16. ☐ **Use a consistent instruction format**: Be consistent in the placement and format of instructions. For example, try to put all instructions in either italics or capitals and place them in parentheses; always place instructions either at the end of the question stem or separate them from the question stem.

17. ☐ **Eliminate nonessential instructions:** Do not repeat instructions in a series of similar questions or items.

18. ☐ **Dual Web and paper instructions:** *For Web Questionnaires* – Instructions contained in Web questionnaires should be meaningful in a paper-and-pencil context if a printable .pdf version is available to respondents, or if the option to respond on a printed copy is otherwise offered.

19. ☐ **Include a "submit" or "completed" question:** *For Web Questionnaires* – The last question should ask respondents to indicate that they have officially completed their questionnaire. Respondents should be told that GAO will not use their answers unless they have answered this question.

E. Navigation

20. ☐ **Skip instructions:**
    - 20.1. ☐ Be clear and consistent with the visual differences between the skip instructions and response categories. For example, use *italics* for skip instructions.
    - 20.2. ☐ Include multiple cues for skip instructions. For example, start a question following a screener question with (IF YES IN QUESTION 4)
    - 20.3. ☐ Avoid positioning a question with a skip instruction at the end of a page.
    - 20.4. ☐ Avoid, to the extent possible, freestanding (i.e. not next to a specific answer choice) skip instructions, especially at the end of a page.

21. ☐ **Question filters:** Avoid question filters that refer to a previous page ("If you said X in question Y on page Z, then answer the following…"). A question filter should refer to the results of a question directly above it, and/or should have some visual connection to the earlier question, perhaps with arrows.
    - 21.1. ☐ *For Web Questionnaires* – **Consider using prepopulated fields in question filters:** Use the QPL feature to display the value of a previously answered question to aid respondents in making decisions on question filters.

22. ☐ **Sections:** Be careful when dividing the questionnaire into sections and in how you label them..
    - 22.1. ☐ **Make sections meaningful and helpful to respondents**: Section headings should be brief, to the point, and should clearly identify the section's content.
      For Web Questionnaires – If a section heading repeats for more than one screen, repeat the section heading text followed by the word "Continued."
    - 22.2. ☐ *For Web Questionnaires* - **Strike a balance between minimizing the number of sections and not having overly long sections:** Having overly long sections may result in lost data if the survey is interrupted. Designers preparing for a peer review of an MS Word draft of a Web questionnaire should clearly identify planned section breaks, headings, and subheadings.

F. Questions

23. ☐ **Phrase questionnaire items as questions with a question mark at the end**: Avoid the use of commands such as “Please provide…” or displaying only labels for information needed.

24. ☐ **Avoid double-barreled questions:** Consider whether apparently linked question elements should be considered separately by respondents in that they can elicit different answers.

25. ☐ **Visually separate nonsubstantive answer categories:** Responses such as “don’t know” or “not applicable” should be separated from scale answers with lines, shading, or space, in questions and matrixes.

26. ☐ **Spell out abbreviations and acronyms the first time they are used**: This should be done even for specialist respondents such as program managers who may be familiar with the terms.

27. ☐ **Avoid using technical jargon if possible:** If it must be used, be sure to provide a definition or an explanation of the concept.

28. ☐ **Use the term “percentage” or “percent” rather than “proportion” when requesting percentages**.

29. ☐ **Use common survey terms correctly and consistently:** For example, use “survey” when referring to the overall survey process (e.g., “GAO is conducting a survey.”) and use questionnaire when referring to the data collection instrument (e.g., “Please complete your questionnaire.”). Throughout the questionnaire, be consistent with your use of the following terms: “answer”/“response,” “skip to”/“go to,” “complete”/“submit,” “no answer”/“no response,” “click on”/”enter,” etc. In addition, check that engagement-related terms are used consistently throughout the questionnaire.

30. ☐ **Use parallel construction in a series of questions:** In a matrix, questions in each row should be phrased similarly. For example, if a series of activities to be rated starts out in the present tense (e.g., “Hiring new employees”), all of the remaining items should be presented similarly.

31. ☐ **Personal versus organizational perspective:** Clearly specify the perspective of the desired response. If a question calls for an organizational perspective, ask the question from that perspective (How does your organization or your agency …). If the question asks for a personal perspective, ask it that way (How do you …). Be sure that all such questions make this distinction clear.

32. ☐ **Specify a clear period of time:** Provide a time period that the respondent should consider when reporting a frequency or other quantity. Consider whether specific time periods are necessary or whether terms such as “ever,” “recently,” or “currently” are appropriate.

33. ☐ **Reconsider using ranking questions:** Ratings are generally preferred to rankings, since rankings may be difficult for respondents to perform, often result in errors, and do not distinguish distances between items. With ratings, respondents rate individual items in a list using a scale, and GAO’s analyses later determine their relative order.

34. ☐ **Question wording should accurately reflect and reinforce answer format.** For example:

    34.1. ☐ **Check-one questions:** Ask "Which **one** of the following…" instead of "Which of the following…"

    34.2. ☐ **Dates:** When requesting a beginning date and end date that are to be recorded in two separate answer spaces, ask: "On what dates did X begin and end…" instead of "When did X take place?"

    34.3. ☐ **Rating scales:** When the answer scale is "strongly approve" to "strongly disapprove," the question stem does not need the phrase "to what extent," as in "To what extent do you approve or disapprove…"

    34.4. ☐ **Consistent voice:** Use the same point of view for both question stem and answer categories. Example: if a question stem uses the second-person "you" voice, avoid the first-person "I" in phrasing the answers categories.

35. ☐ **Avoid check-all-that-apply questions:** These questions should be replaced with matrixes that require a "Yes/No" response for every item, unless all respondents have *a priori* knowledge of the answer list's content (example: states' names are a well-known set of answers).

36. ☐ **Avoid agree/disagree questions when possible:** One-sided assertions with agree/disagree scales should be replaced by questions that offer construct-specific choices. For example: ask "How clear is your supervisor about expectations for your work?" "Extremely clear" to…"Not at all clear" instead of "Do you agree or disagree with the following statement: "My supervisor is always clear about what is expected of me?". However, for certain multi-item indexes, agree/disagree questions may sometimes be appropriate.

G. Answers

37. ☐ **Shorten answer labels:** Remove words that all answer labels share in common and place them in the stem of the question. Examples:
    - Remove "In" in the responses "In all cases, in some cases, in no cases."
    - Remove "timeliness" in the answers "Excellent timeliness, good timeliness, fair timeliness, poor timeliness."
    - Remove "To a" in the answers "To a very great extent, to a great extent, to some extent, to little or no extent." The stem of the question would be worded: "To what extent, if at all, does…"

38. ☐ **"No answer:"** *For Web Questionnaires* – Check-one radio button questions in Web questionnaires that cannot be unclicked once an answer is selected may include a nonresponse category with a label such as "No answer" or "No response" in addition to any "Don't know," "Not applicable," or other non-substantive answer.)

    38.1. ☐ **Avoid preselecting "no answer" radio buttons:** *For Web Questionnaires* - Respondents may see a filled-in circle and mistakenly conclude that the question has been answered.

39. ☐ **Keep response scale order consistent:** Response scales used repeatedly in a questionnaire should generally run in the same direction (example: from satisfied to dissatisfied across questions).

40. ☐ **Answer space size for fill-in-the-blank and essay type open-ended questions should match the length of the expected answer:** For example, the answer space for a telephone number should be shorter than the space for a person's name; answer spaces for large dollar amounts should be longer than those for numeric percentages).

41. ☐ **For numeric answers**, consider placing masks or other formatting characters ($, %, : , /) at or within the answer space to help respondents enter valid answers (example: consider formatting date questions as __/__/____ (mm/dd/yyyy), or percent questions as _______%, or dollar entry questions as $ ____________.00).

II. Checklist for Web Questionnaire Functionality Testing

When a Web questionnaire is deployed to the intranet or Internet, an additional review should be performed because some features may not be visible or operational until then. The questionnaire designer in conjunction with the engagement team members can perform these checks. To check all questionnaire components it is important to go through the same steps that respondents must do, that is, follow an email link to the "Hello" page, log on, carefully read the introductory screens, check the navigation bar, and then read all the pages and test all links, radio buttons, check boxes, and navigation controls while considering the points below. Also, if the questionnaire was designed in MS Word, it is important to make sure that question wording and instructions make sense when translated into a QPL web survey. Reviewers should also be alert to the issues raised in the preceding checklist as well as to the additional items listed below.

1. ☐ **Skip patterns:** Check that all skip patterns take respondents to the correct question when the links are clicked. If a skip instruction is linked to a section heading, make sure that the wording of the link will make sense to respondents.

2. ☐ **Fonts:** Watch for unwanted font continuations caused by missing "/" escape characters, and

3. ☐ **Line spacing:** Watch for unwanted extra lines within questions or between questions.

4. ☐ **Popups:** Check all popup boxes for functionality and content.

5. ☐ **Consistency**: Check questionnaire body, "Hello" page, any popups, and "Thank You" page to make sure terms and instructions are consistent (example: if contact names are cited in several places, be sure they are identical).

6. ☐ **Prepopulation:** Confirm that automatically filled-in values (from previous questions or the respondent information database) appear in prepopulated fields and appear to be correct. Ensure that the fields are the right size for the data to be displayed.

7. ☐ **Automated validation:** Check to see that any number-totaling utilities used (example: checking percentage totals) and numeric fields with tailored input formatting (example: number of decimals allowed) are working.

8. ☐ **Preview copy of the questionnaire:** Confirm that the PDF or Word file opens when the link is clicked.
    - 8.1. ☐ **Correct version:** Check that it is the final questionnaire that exactly matches the on-line version.
    - 8.2. ☐ **Truncation:** Check that long lines in the file are not truncated.
    - 8.3. ☐ **Standalone:** Check so that if a respondent chooses to fill out and return only the preview version of the questionnaire, they can understand and complete it in this format.

9. ☐ **Survey end date:** If giving a specific deadline date is desired, it should not be in the body of the questionnaire, but rather in the email messages. If the date needs to be changed, it is very difficult to change if it is stated in the questionnaire.

10. ☐ **Navigation bar:** If the bar is to be displayed, check the actual headings and subheadings displayed and test each entry to confirm that it sends the respondent to the intended section. Headings and subheadings should be specific as to the content of the section they represent.

11. ☐ **Submission instructions**: Always end the questionnaire with a question about final submission. Make sure the default answer for the question is that the survey is not yet ready to be submitted (i.e., default to a "not ready to submit," “survey not finished” or "not completed" button). Be sure that the language about “Exit” and "Submit" actions are consistent between any early instructions, the instructions in the final question and the answer button for that question.

12. ☐ **Matrixes:**
    - 12.1. ☐ **Rows:** Decide whether there are enough rows to justify breaking up the table by repeating the header row with its answer labels so that the header does not disappear when scrolling down the matrix.
    - 12.2. ☐ **Table width:** If columns are so numerous that respondents must use horizontal scrolling to see them all, reconsider that matrix format.

13. ☐ **Printing answers:** This function, allowing the respondent to print the entire questionnaire showing their answers, should be tested.
    - 13.1. ☐ **Instruction consistency:** Make sure the instructions for doing this in the beginning of the questionnaire are consistent with the language at the end.
    - 13.2. ☐ **Separate from “complete” question:** Make sure the printing instructions are on a separate screen after the question that asks the respondent if they have completed the survey. The final instructions to exit the survey should be repeated after the printing screen.