



**PSI EBRIEF #5**  
**BEST PRACTICES FOR SURVEY CREATION:**  
**INDUSTRY RECOMMENDATIONS AND**  
**USEFUL GUIDELINES**

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**Disclaimer.** These guidelines are generalizations based on research, but they do not represent an exhaustive list of supporting literature research. Credentialing organizations should consult with a market research professional because unique situations may require other evidenced-based approaches and/or industry best practices. PSI believes this is a working document, and any feedback is highly encouraged. Please send your feedback to [marketresearch@psonline.com](mailto:marketresearch@psonline.com).

## A. Inducing Participation

Factors to Consider	Summary	Supporting Literature
1. Grab the attention of survey participants	<p>Use straightforward and enticing language to invite participants.</p> <p>Using an authoritative subject line can increase survey participation. Participants decide whether to participate within the first few seconds.</p>	<p>Fazekas, Z., Wall, M. T., &amp; Krouwel, A. (2014). Is it what you say, or how you say it? An experimental analysis of the effects of invitation wording for online panel surveys. <i>International Journal Of Public Opinion Research</i>, 26(2), 235-244.</p> <p>Kaplowitz, M.D., Lupi, F., Couper, M.P., &amp; Thorp, L. (2012). The effect of invitation design on web survey response rates. <i>Social Science Computer Review</i>, 30(3), 339-349. doi:10.1177/0894439311419084</p> <p>Dillman, D. A., Smyth, J. D., &amp; Christian, L. M. (2014). <i>Internet, phone, mail, and mixed-mode surveys: The tailored design method</i> (4th ed.). Hoboken, NJ: John Wiley &amp; Sons.</p>
2. Offer an incentive	<p>Contributions to a charity, a small amount of cash, a gift certificate, small electronics, continuing education credits, or registration to a conference incentivize people to complete the survey because they feel as though they are receiving something in exchange for their time.</p> <p>Providing continuing education credits (along with a nominal monetary amount) has improved response rates. Because it is unique to the credentialing world, few studies exist.</p>	<p>Mann, S. L., Lynn, D. J., &amp; Peterson JR, A. V. (2008). The "downstream" effect of token prepaid cash incentives to parents on their young adult children's survey participation. <i>Public Opinion Quarterly</i>, 72(3), 487-501.</p> <p>Singer, E. &amp; Ye, C. (2012). The use and effects of incentives in surveys. <i>The ANNALS of the American Academy of Political and Social Science</i>, 645(1), 112-141. doi:10.1177/0002716212458082</p> <p>McDermott, M. M., Greenland, P., Hahn, E. A., Brogan, D., Celia, D., Ockene, J., &amp; ... Khan, S. (2003). The effects of continuing medical education credits on physician response rates to a mailed questionnaire. <i>Health Marketing Quarterly</i>, 20(4), 27-42. doi: 10.1300/J026v20n04_03</p>

3. Simplify completing and returning the survey	Provide direct access to the survey. Be sure respondents have the opportunity to save and return to their survey later.	McPeake, J., Bateson, M., & O'Neill, A. (2014). Electronic surveys: How to maximise success. <i>Nurse Researcher</i> , 21(3), 24-26. doi:10.7748/nr2014.01.21.3.24.e1205
4. Help participants understand how their responses will be used	Clearly outline the purpose of the survey so that participants know how their responses will influence the results.  Clearly explain expectations for anonymity, privacy, and confidentiality in the introduction. Participants 1) may not participate if they doubt the security of their information and 2) may not be honest if they feel their responses can be linked directly to them.	Bowling, A. (1997). <i>Research methods in health: Investigating health and health services</i> . Buckingham: Open University Press.  Rea, L. M., & Parker, R. A. (2012). <i>Designing and conducting survey research: A comprehensive guide</i> . San Francisco: John Wiley & Sons.
5. Increase future participation	Conclude the survey with a thank you and a notification confirming submission of the participant's responses.	De Vaus. D.A., (2002). <i>Surveys in social research</i> (5th ed.). London: Routledge.

## B. Meeting Survey Objectives

Factors to Consider	Summary	Supporting Literature
1. Ensure questions align with the survey objective(s)	The survey's objectives should align to your research question(s). The survey questions should align to those objectives. Respondents may be suspicious if irrelevant questions are asked. "There is diminishing value in asking questions that are too broad."	Findlay, K., Hofmeyr, J., & Louw, A. (2014). The importance of rank for shorter, smarter surveys. <i>International Journal of Market Research</i> , 56(6), 717-736.
2. Outline objectives to be measured during the development phase	Create a list of "information requirements" (i.e., what it is you want to learn from the survey) before designing the survey questions and response options.  Avoid hypothetical questions.	De Vaus. D.A., (2002). <i>Surveys in social research</i> (5th ed.). London: Routledge.  Lenzner, T., Kaczmirek, L., & Lenzner, A. (2010). Cognitive burden of survey questions and response times: A psycholinguistic experiment. <i>Applied Cognitive Psychology</i> , 24(7), 1003-1020. doi:10.1002/acp.1602

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3. Limit extra questions	Only ask questions that are relevant to the study. The more questions asked, the more likely respondents will prematurely end the survey.	Beebe, T. J., Rey, E., Ziegenfuss, J. Y., Jenkins, S., Lackore, K., Talley, N. J., & Locke, R. G. (2010). Shortening a survey and using alternative forms of prenotification: Impact on response rate and quality. <i>BMC Medical Research Methodology</i> , 10(1), 1050-1058. doi:10.1186/1471-2288-10-50
4. Compare previous results	If a study objective is to measure change over time, then using previous survey content is appropriate. Word questions in ways that allows comparison between current and previous research.	Oppenheim, A. N. (1993). Questionnaire design, interviewing and attitude measurement. <i>Journal of Marketing Research</i> , 30(3), 393-395. doi:10.1002/casp.2450040506
5. Field test the survey	Identify issues with construction and content (including survey questions) by having a small sample of the target audience complete a test version of the survey. Issues with unclear language, incomplete response options, and layout can be addressed prior to sending it the larger audience.	Saris, W. E., & Gallhofer, I. N. (2014). <i>Design, evaluation, and analysis of questionnaires for survey research</i> . Hoboken, NJ: Wiley.  Priest, J., McColl, E., Thomas, L., & Bond, S. (1995). Developing and refining a new measurement tool. <i>Nurse Researcher</i> 2, 2(4), 69-81.

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### C. Writing Survey Questions

Factors to Consider	Summary	Supporting Literature
1. Use clear language	Review questions for readability and relatedness to the objective.	Jack, B., & Clarke, A. (1998). The purpose and use of questionnaires in research. <i>Professional Nurse</i> , 14(3), 176-179.
	The number of words in a question should not exceed 20.	Payne, S. L. B. (1951). <i>The Art of Asking Questions</i> . Studies in Public Opinion, no. 3. Princeton: Princeton University Press.
	Provide neutral descriptions and avoid language that incites emotion. For example, use "after your workday," instead of "after your long workday."	Schwarz, N. (1996). <i>Cognition and communication: Judgmental biases, research methods, and the logic of conversation</i> . Mahwah, NJ: L. Erlbaum Associates.
	Ask one question at a time and avoid double-barreled questions. For example, "Do you consider your work fun and challenging?" should be separated into two questions.	Bowling, A. (1997). <i>Research methods in health: Investigating health and health services</i> . Buckingham: Open University Press.
	Ensure questions are clear and not ambiguous. For example, "Are you similar to your supervisor?" is not as clear as "Do you respond similarly to your supervisor in an emergency?"	Lenzner, T., Kaczmirek, L., & Lenzner, A. (2010). Cognitive burden of survey questions and response times: A psycholinguistic experiment. <i>Applied Cognitive Psychology</i> , 24(7), 1003-1020. doi:10.1002/acp.1602
	Complex language may confuse participants. Simplify language and avoid jargon, especially when sending a survey to an international audience.	Bradburn, N. M., Sudman, S., & Wansink, B. (2004). <i>Asking questions: The definitive guide to questionnaire design: For market research, political polls, and social and health questionnaires</i> (2nd ed.). San Francisco: Jossey-Bass.

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2. Be mindful of sensitive topics	Avoid embarrassing or angering respondents, as this may cause them to end the survey prematurely. For example, using wider income intervals such as "\$20,000 to \$40,000" instead of "\$20,000 to \$25,000" may reduce the discomfort.	Albaum, G., Wiley, J., Roster, C., & Smith, S. M. (2011). Visiting item non-responses in internet survey data collection. <i>International Journal of Market Research</i> , 53(5), 687-703. doi:10.2501/IJMR-53-5-687-703
	Avoid using absolute or judgmental terms such as "always," "only," and "just" because respondents may interpret these differently.	Krosnick, J. A., & Presser, S. (2010). Question and Questionnaire Design. In P. V. Marsden & J. D. Wright (Eds.), <i>Handbook of survey research</i> (2nd ed., pp. 263-313). Bingley, UK: Emerald.
3. Use clear construction	Questions should use interrogatives and not be sentence completion. Respondents have a difficult time interpreting the question if the correct answer is not suggested by the question itself (e.g., "What is your name?" instead of "Your name:").	Schober, M. F. (1999). Making sense of questions: An interactional approach. In M.G. Sirken, D.J. Herrmann, S. Schechter, N. Schwarz, J.M. Tanur, & R. Tourangeau (Eds.), <i>Cognition and Survey Research</i> (pp. 77-93). John Wiley & Sons.
	Write questions with the presence, not absence, of something in mind. Therefore, avoid the use of negatives such as "not" or "never."	Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). <i>Internet, phone, mail, and mixed-mode surveys: The tailored design method</i> (4th ed.). Hoboken, NJ: John Wiley & Sons.
		Iarossi, G. (2006). <i>The power of survey design: A user's guide for managing surveys, interpreting results, and influencing respondents</i> . Washington, D.C.: World Bank. doi:10.1596/978-0-8213-6392-8
4. Provide opportunities to confirm answers	Many factors influence people's attitudes and beliefs, which can vary by the phrasing of the question. Therefore, when asking about attitudes or beliefs, asking multiple questions on the same concept can reveal true intent.	Robinson, M. D., & Clore, G. L. (2002). Belief and feeling: Evidence for an accessibility model of emotional self-report. <i>Psychological Bulletin</i> , 128(6), 934-960. doi:10.1037//0033-2909.128.6.934

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## D. Creating Response Options

Factors to Consider	Summary	Supporting Literature
1. Design rating scales	<p>Vary the type of answer scales through the survey. When the same rating scale is used for many questions, respondents might not pay attention to each individual question and answer the same for all.</p> <p>Use the right number of options for the scale. Five options are sufficient to differentiate intent (unipolar). Four is also acceptable when a neutral or middle response is not necessary. Seven point scales are also appropriate in some circumstances (bipolar).</p> <p>Give equal weight to all options. Do not only label the endpoints but also label all of the options in the scale to increase the understanding of the intermediate points.</p>	<p>Krosnick, J. A., &amp; Alwin, D. F. (1987). An Evaluation of a Cognitive Theory of Response-Order Effects in Survey Measurement. <i>Public Opinion Quarterly</i>, 51(2), 201. doi:10.1086/269029</p> <p>Revilla, M. A., Saris, W. E., &amp; Krosnick, J. A. (2014). Choosing the Number of Categories in Agree-Disagree Scales. <i>Sociological Methods &amp; Research</i>, 43(1), 73-97. doi:0049124113509605</p> <p>Saris, W. E., &amp; Gallhofer, I. N. (2014). Design, evaluation, and analysis of questionnaires for survey research. Hoboken, NJ: Wiley</p> <p>Krosnick, J. A., &amp; Presser, S. (2010). Question and Questionnaire Design. In P. V. Marsden &amp; J. D. Wright (Eds.), <i>Handbook of survey research</i> (2nd ed., pp. 263-313). Bingley, UK: Emerald.</p> <p>Weijters, B., Cabooter, E., &amp; Schillewaert, N. (2010). The effect of rating scale format on response styles: The number of response categories and response category labels. <i>International Journal of Research in Marketing</i>, 27(3), 236-247. doi:10.1016/j.ijresmar.2010.02.004</p> <p>Krosnick, J. A. (1999). Survey Research. <i>Annual Review of Psychology</i>, 50(1), 537-567. doi:10.1146/annurev.psych.50.1.537</p>

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	<p>Order scales in a logical way and be consistent with the "direction" of the scales once used. For example, list the most positive option first and most negative option last on each scale. If using both negative and positive values, include an equal number of points before and after the middle point. If rating scale reversing is to occur, do so cautiously and with explicit instructions.</p> <p>If "not applicable" is relevant, include it at the end of the scale to distinguish it from the neutral option.</p> <p>State both endpoints of a scale when mentioned in a question prompt. For example, "How much do you agree/disagree with the following statement?" Doing so reduces bias towards one endpoint.</p>	<p>Weijters, B., &amp; Baumgartner, H. (2012). Misresponse to Reversed and Negated Items in Surveys: A Review. <i>Journal of Marketing Research</i>, 49(5), 737-747. doi:10.1509/jmr.11.0368</p> <p>Dolnicar, S., &amp; Grun, B. (2013). Including Don't know answer options in brand image surveys improves data quality. <i>International Journal of Market Research</i>, 2-14.</p> <p>Dillman, D. A., Smyth, J. D., &amp; Christian, L. M. (2014). <i>Internet, phone, mail, and mixed-mode surveys: The tailored design method</i> (4th ed.). Hoboken, NJ: John Wiley &amp; Sons.</p>
<hr/> <p>2. Select response types</p>	<p>Limit use of "check all that apply" answer formats to reduce primacy effects, where respondents are likely to check off more items at the beginning of the list due to seeing them first.</p>	<hr/> <p>Krosnick, J. A., &amp; Alwin, D. F. (1987). An Evaluation of a Cognitive Theory of Response-Order Effects in Survey Measurement. <i>Public Opinion Quarterly</i>, 51(2), 201. doi:10.1086/269029</p> <p>Stern, M. J., Bilgen, I., &amp; Rookey, B. D. (2013). Toward understanding response sequence in check-all-that-apply web survey questions: A research note with results from client-side paradata and implications for smartphone question design. <i>Survey Practice</i>, 5(4). Retrieved January 13, 2015, from <a href="http://www.surveypractice.org/index.php/surveypractice/article/view/30">http://www.surveypractice.org/index.php/surveypractice/article/view/30</a></p>



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	<p>Use open-ended questions for collecting subjective or widely varying information, such as attitudes, feelings, or experiences. Open-ended questions provide the most detailed information but take the most effort to analyze.</p>	<p>Miller, A., &amp; Lambert, A. (2014). Open-ended survey questions: Item nonresponse nightmare or qualitative sata stream? <i>Survey Practice</i>, 7(5). Retrieved January 13, 2015, from doi: <a href="http://www.surveypractice.org/index.php/SurveyPractice/article/view/263">http://www.surveypractice.org/index.php/SurveyPractice/article/view/263</a></p>
	<p>Ensure that options are mutually exclusive to reduce confusion. For example, "1 to 3 years" and "3 to 5 years" would be difficult to differentiate if 3 years was correct.</p>	<p>Choi, B. C., &amp; Pak, A. W. (2005). A catalog of biases in questionnaires. <i>Preventing Chronic Disease</i>. Retrieved January 13, 2015, from <a href="http://www.cdc.gov/pcd/issues/2005/jan/04_0050.htm">http://www.cdc.gov/pcd/issues/2005/jan/04_0050.htm</a></p> <p>Priest, J., McColl, E., Thomas, L., &amp; Bond, S. (1995). Developing and refining a new measurement tool. <i>Nurse Researcher</i> 2, 2(4), 69-81.</p>
<p>3.Format questions appropriately</p>	<p>Use drop down boxes only when needed for a long list of options and be sure to include instructions, such as "Click here" or "Select" in an online survey.</p> <p>List answer options vertically, not horizontally, as this arrangement allows for easier comparisons.</p> <p>When able, present the answer options in a random order. This will reduce primacy or recency effects.</p>	<p>Dillman, D. A., Smyth, J. D., &amp; Christian, L. M. (2014). <i>Internet, phone, mail, and mixed-mode surveys: The tailored design method</i> (4th ed. pp. 140-142). Hoboken, NJ: John Wiley &amp; Sons.</p> <p>Couper, M. P., Tourangeau, R., Conrad, F. G., &amp; Crawford, S. D. (2004). What they see is what we get: Response options for web surveys. <i>Social Science Computer Review</i>, 22(1), 111-127. doi:10.1177/0894439303256555</p> <p>Brace, I. (2004). <i>Questionnaire design: How to plan, structure, and write survey material for effective market research</i>. London: Kogan Page.</p> <p>Duffy, B. (2003). Response order effects-how do people read? <i>International Journal of Market Research</i>, 45(4), 457-466.</p> <p>Krosnick, J. A., &amp; Alwin, D. F. (1987). An evaluation of a cognitive theory of response-order effects in survey measurement. <i>Public Opinion Quarterly</i>, 51(2), 201-219. doi:10.1086/269029</p>

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## E. Creating an Effective Survey Layout

Factors to Consider	Summary	Supporting Literature
1. Provide clear instructions	Specify instructions in the introduction or on every new page if the survey is complex. Survey participants are more likely to finish the survey if they are clear about what to do.	Bradburn, N. M., Sudman, S., & Wansink, B. (2004). <i>Asking questions: The definitive guide to questionnaire design: For market research, political polls, and social and health questionnaires</i> (2nd ed.). San Francisco: Jossey-Bass.
2. Design a flow within and between topics	<p>Divide the survey into general topics. Ask all questions relating to one topic before moving on to a new topic. When possible, keep questions with similar topics on the same page.</p> <p>Use a “funnel approach” when ordering questions. Narrow the focus gradually by asking the most general questions first and ending with the most detailed questions.</p> <p>Provide a brief introduction or description before asking questions about a new topic to ensure a smooth transition. This allows participants to focus fully on the new topic.</p>	<p>Fowler, F. J. (1992). How Unclear Terms Affect Survey Data. <i>Public Opinion Quarterly</i>, 56(2), 218. doi:10.1086/269312</p> <p>Krosnick, J. A., &amp; Presser, S. (2010). Question and Questionnaire Design. In P. V. Marsden &amp; J. D. Wright (Eds.), <i>Handbook of survey research</i> (2nd ed., pp. 263-313). Bingley, UK: Emerald.</p> <p>Brace, I. (2004). <i>Questionnaire design: How to plan, structure, and write survey material for effective market research</i> (p. 133). London: Kogan Page.</p> <p>Brink, H., Walt, C. V., &amp; Hildegard, V. R. (2006). <i>Fundamentals of research methodology for health care professionals</i>. Cape Town: Juta.</p> <p>Fowler, F. J. (2014). <i>Survey research methods</i>. Newbury Park: Sage Publications.</p>

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3.Ensure readability and flow	Use a simple typeface and a large enough font size for respondents to read without exerting too much effort.	Arditi, A., & Cho, J. (2005). Serifs and font legibility. <i>Vision Research</i> , 45(23), 2926-2933. doi:10.1016/j.visres.2005.06.013
	Draw attention to crucial concepts or ideas by formatting the text with bold or underline font to make them stand out.	Brace, I. (2004). <i>Questionnaire design: How to plan, structure, and write survey material for effective market research</i> (p. 142). London: Kogan Page.
	Use visuals to communicate complicated questions. Providing a graph, table, or chart will allow the respondents to process the information more quickly.	Lin, H., & Dwyer, F. M. (2010). The effect of static and animated visualization: A perspective of instructional effectiveness and efficiency. <i>Educational Technology Research and Development</i> , 58(2), 155-174. doi:10.1007/s11423-009-9133-x
	Maintain the participant's focus by restricting the number of questions on each page and using white space.	Toepoel, V., Das, M., & Soest, A. V. (2009). Design of web questionnaires: The effects of the number of items per screen. <i>Field Methods</i> , 21(2), 200-213. doi:10.1177/1525822X08330261
	Provide a way for respondents to measure their progress.	Couper, M. P., Traugott, M. W., & Lamias, M. J. (2001). Web survey design and administration. <i>Public Opinion Quarterly</i> , 65(2), 230-253. doi:10.1086/322199
		Villar, A., Callegaro, M., & Yang, Y. (2013). Where am I? A meta-analysis of experiments on the effects of progress indicators for web surveys. <i>Social Science Computer Review</i> , 31(6), 744-762. doi:10.1177/0894439313497468

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Be mindful of anti-SPAM regulations when emailing invitations. Participants need to provide consent to be included (opt-in), the message should not be false or misleading, a means of unsubscribing should be provided, and the organization's name and address should be included in the message.

U.S. Federal Trade Commission. (2009, September). *CAN-SPAM Act: A compliance guide for business*. Retrieved January 20, 2015, from <http://www.ftc.gov/tips-advice/business-center/can-spam-act-compliance-guide-business>

Government of Canada. (n.d.). *Three things to think about when sending messages*. Retrieved January 20, 2015, from [http://fightspam.gc.ca/eic/site/030.nsf/vwapj/ThreeThings\\_toThinkAbout-eng.pdf/\\$FILE/ThreeThings\\_toThinkAbout-eng.pdf](http://fightspam.gc.ca/eic/site/030.nsf/vwapj/ThreeThings_toThinkAbout-eng.pdf/$FILE/ThreeThings_toThinkAbout-eng.pdf)

Information Commissioner's Office. (n.d.). *How do the regulations apply to marketing by electronic mail?* Retrieved January 20, 2015, from <https://ico.org.uk/for-organisations/guide-to-pecr/electronic-mail/>

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