

Questionnaire Design Checklist

Checklist item	✓/NA
The information page/paragraph The following should be included in the information page	
The overall aim of the project - e.g. to determine the impact on participants of a diabetes education program	
Purpose of the questionnaire e.g. evaluate service delivery, participant satisfaction or determine the impact of an intervention - i.e. how the data will be used	
Who is conducting the project (department, organisation, personnel)	
What is involved for the person completing the questionnaire, how long the questionnaire will take to answer	
Why the respondents have been chosen	
Risks and benefits of participation	
Information on how a respondent can withdraw from the project, including what will happen to their data and the fact that their health care or access to the program will not be affected in any way	
Costs of taking part/reimbursement or incentives	
Who is funding the project	
Who will have access to the data	
How privacy and confidentiality will be ensured	
Contact details for further information - usually the Program Manager/Project Officer/Chief Investigator	
Contact details for complaints independent from project staff - Ethics Committee or Senior Manager/Director	
How respondents will be informed of the results of the project	
Instructions on how to submit the completed questionnaire	
Characteristics of questions	
Questions do not impose your own values, perceptions or language on the respondent	
Consider the number of open ended and closed questions. Data analysis is simpler with closed questions; information may be richer with open ended questions	
Questions are valid i.e. measures what it is supposed to measure, relevant, connected to the topic, logical, consistent (only one unambiguous interpretation) and realistic (i.e. respondent will be able to answer). Pilot testing will help confirm validity. Many types of validity e.g. face, content, internal etc.	
Questions are reliable - i.e. consistent - all respondents answer the question the same way. Many types e.g. test-retest i.e. respondents would answer the question the same way each time if the thing being measured is stable.	
Questions are short - minimises the burden on respondents, keeps their attention	
Responses are short - clear and concise	
Questions are necessary, information will be used	
Questions are not double-barrelled <i>Did you find the education program interesting and useful?</i>	
Questions are not ambiguous <i>Did he give her cat food?</i> Is he giving cat food to her or is he giving food to her cat?	
Questions are not leading e.g. <i>I assume you would agree that the teachers do a great job for our children.</i>	
Questions are not negatively framed e.g. <i>Don't you think the organisation is overspending on administration?</i>	
Questions are culturally appropriate. Consider language used for different groups e.g. rural vs. city, male vs. female, young vs. older, different community / cultural groups	
Questions consider the literacy levels of the respondents e.g. use pictures instead of words when asking about fruit consumption, check readability scale (Word has this feature)	

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Characteristics of questions continued	
Respondents are likely to have necessary knowledge of the topic. Are people likely to know the answer to questions? e.g. <i>Do you agree with the government's policy on school canteens?</i> Only those with school aged children or working in schools are likely to know.	
Questions do not have obvious right answers e.g. <i>Which cereal is the least healthy?</i> Responses are <i>Sugar coated cereal, plain porridge</i> . Sugar coated cereal is obviously the unhealthiest cereal.	
Questions will not elicit a biased answer. There are many types of bias including: Recall bias - people with mesothelioma are more likely to recall asbestos exposure than those without mesothelioma. Need to consider how the data will be interpreted. Response bias - <i>Given 18 year old people are old enough to fight and die for their country, don't you think they should be able to drink alcohol as well?</i> (bias and a leading question). <i>Do you think 18-year-olds should be able to drink alcohol?</i> (less or no bias). Prestige bias - Question linked with well know people or trusted people e.g. <i>Most doctors say that cigarette smoke causes lung disease. Do you agree?</i> tends to provoke 'Yes' answer.	
Possibly sensitive questions are considered. Are respondents likely to think the question is reasonable? e.g. only ask about income if it has direct bearing on the topic on which you are collecting information. Can questions be framed a little less harshly?	
Respondents are likely to be willing to answer the question e.g. <i>Do you smack your children? How often do you drink excessive alcohol and drive?</i> Respondents may be reluctant to answer these questions.	
Consider whether personal or impersonal wording is preferable. Use personal wording if you want information about feelings e.g. <i>How do you feel about your chemotherapy regimen?</i> and impersonal wording if you want facts e.g. <i>Is chemotherapy used for breast cancer?</i>	
Questions do not make assumptions e.g. <i>How many people do you live with?</i> assumes you do not live alone	
Questions are specific. Instead of <i>last year</i> use <i>2012</i> or <i>2011-12</i> , instead of <i>government</i> use <i>Australian Government</i> or <i>ACT Government</i> , instead of <i>children</i> give a specific age or age group, instead of <i>school children</i> use <i>preschool/primary/secondary/ college students</i>	
Questions are clear, not vague e.g. <i>Regularly, occasionally</i> mean different things to different people, replace with <i>every day, once a week, once a month</i>	
Using scales and pre-determined alternative responses	
Is the scale the best one for this questionnaire? Likert - pronounced 'lick-urt' - scale the most commonly used (has pros and cons - see reference)	
Labels are used to encourage accuracy e.g. Use <i>once a day, once a week, once a month</i> instead of <i>often, sometimes, rarely</i> as the latter mean different things to different people, cultures, age groups. Studies show that people find it difficult to differentiate between <i>very good</i> and <i>good</i> – better to use <i>good</i> and <i>excellent</i> .	
Numbered scales include labels e.g. scales marked 1 to 5, with 5 being the highest can lead to less accurate results than scales with labels such as <i>good</i> or <i>poor</i> . If numbered scales are used, signposts are recommended (e.g. put <i>poor</i> above 1, <i>satisfactory</i> above 3 and <i>excellent</i> above 5).	
Number of points (odd vs. even). Usually a scale with between 3 and 7 points (> 7 points are too many). Different questions need different responses - consider - a scale with an even number of points forces the respondent to make a decision, while those with an odd number usually have a neutral middle point. People tend to go for the middle answer (Central tendency related error). It is a problem with all scales, but is less with even numbered scales.	
Pre-determined alternative questions are accurate e.g. responses to the question <i>How important is flex-time to you?</i> should be <i>important/very important etc.</i> rather than <i>interesting /very interesting etc.</i>	
Pre-determined alternative questions are on a single dimension e.g. Don't mix <i>useful, very useful</i> and <i>boring, very boring</i>	

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Using scales continued	
Pre-determined alternative responses are mutually exclusive if only one possible response is required. Ensure age groups do not overlap 15-25 years and 26-30 years not 15-25 and 25-30 years. <i>Where did you hear about the education program?</i> Responses- <i>at work, from a friend, from the newspaper.</i> Respondent may have heard from a friend in the newspaper office where they both work (in a newspaper office).	
Pre-determined alternative responses are comprehensive and have similar value. Check that all possible responses are included, don't include responses of high and low importance in the same list unless being ranked (biases responses with low importance). Consider adding <i>Other, please explain</i> option	
Words and grammar	
Language is simple	
Consider your audience - use friendly and colloquial (if appropriate) language, technical/ non-technical, appropriate to the respondents e.g. use <i>front</i> for lay audience, <i>anterior</i> for medical audience	
Use unemotional language	
No unfamiliar or difficult words <i>Used</i> instead of <i>utilised</i> , <i>helpful</i> instead of <i>advantageous</i> , <i>improve</i> instead of <i>ameliorate</i> , <i>combine</i> instead of <i>consolidate</i> , <i>fake</i> instead of <i>fabricate</i>	
Check words that sound the same or similar to other words are correct, or avoid using them e.g. partial/impartial; affect/effect; accept/except; inquiry/enquiry; practice/practise; fete/fate; principle/principal	
Avoid words with double meanings e.g. <i>The bandage was wound around the wound</i>	
Avoid jargon, acronyms (<i>stroke</i> instead of <i>CVA</i>), slang (<i>Ambulance officer</i> instead of <i>Ambo</i>)	
Use correct grammar <i>Are there</i> instead of <i>Is there any questions?</i> <i>...your health</i> instead of <i>...you're health</i>	
Sequencing questions	
Questions flow naturally	
Questions flow logically from one to the next	
Questions are ordered to maximise responses - Three stage (sandwich) theory suggests initial questions be screening and rapport questions, second stage questions are topic specific and in final stage you ask demographic questions.	
Questions are grouped by topic	
The same types of questions and responses are used in a series of questions i.e. Don't use <i>yes/no</i> and multiple choice in same series	
Questions start with the general and go to the specific	
Questions should flow from the least sensitive to the most sensitive. Generally start with easy to answer questions section (not controversial or confronting, not too long) put more difficult/sensitive questions in the middle and finish with easy to answer questions e.g. could put demographic questions last. Need to give special consideration to this if questions are emotive or potentially distressing. This may assist the respondent to return to normal if they have found completing the questionnaire emotionally challenging.	
Questions should flow from factual and behavioural questions to attitudinal and opinion questions.	
Answers will not be influenced by preceding questions e.g. a preceding question might be testing how respondents rate particular risk factors of 'y', and the following might ask ' <i>what is likely to be a risk factor of y</i> '.	
Important questions are positioned early, not late in the questionnaire	
Questionnaire layout/formatting	
Questionnaire is designed to make the task of reading questions, following instructions and recording answers easy for respondents	
Formatting and graphic design will motivate and guide respondents through the questionnaire e.g. not cramped, plenty of white space, easy to read font, easy to follow, logical layout	

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Questionnaire layout/formatting continued	
Questionnaire is divided into named sections. Consider the language used in section names e.g. use 'About you' instead of 'Demographics', 'Who took part in your project?' rather than 'Project Reach'.	
Clear instructions are given on how to answer the question e.g. <i>cross one only, cross as many as apply, rank in order 1- 3 (1 being the highest ranked), enter whole numbers.</i>	
Transitional statements are used e.g. <i>Next, we would like to ask you about...</i> useful to break up long series of questions and make the questionnaire more user friendly.	
Ensure question and instructions are clearly separated from the responses	
Numbers are correctly sequenced	
Skip patterns are easy to follow	
Questions do not cross pages i.e. don't turn a page in the middle of a sentence or have question and responses over 2 pages	
Response categories are vertically aligned. Response items go down the page and responses across the page	
There are no typographical errors e.g. <i>from, form; diary, dairy; accept, except; affect, effect</i>	
There is plenty of room for respondents to add their own comments	
Questions are coded to help with data entry and analysis (optional)	
Respondents are thanked for participating	
Information on how to submit the completed questionnaire is included	
Consider giving contact details again	
Piloting the Questionnaire	
Questionnaire has been reviewed by colleagues	
People similar to the response group have trialled the questionnaire. Trial under the same conditions as the questionnaire will be administered	
Questions were interpreted as expected	
The time it takes to complete the questionnaire is checked then included in the information page / paragraph Inaccurately estimating the completion time for the questionnaire may result in it not being completed e.g. if the instructions state it will take 10 minutes to do the questionnaire and it takes 20 minutes or more respondents may opt out before the questionnaire is finished.	
Trial analysis of data undertaken	
Questionnaire was revised as appropriate	

Acknowledgements

This Questionnaire Design Checklist concept was modelled on Paul CL, Redman S & Sanson-Fisher RW. The development of a Checklist of Content and Design Characteristics for Printed Health Education Materials, *Health Promotion Journal of Australia* 1997; 7(3):153-9.

Elements of the Questionnaire Design Checklist are derived from:

Robson C. 2011. Box 10.6 Checklist to help avoid problems in questions wording. *Real World Research. A Resource for Users of Social Research Methods in Applied Settings*, p255-6 Wiley, West Sussex, and

Taylor-Powell E. 1998. *Questionnaire Design: Asking questions with a purpose*. University of Wisconsin – Extension <http://learningstore.uwex.edu/assets/pdfs/G3658-2.pdf> viewed 7 July 2015.

Other References

ACT Government Health Directorate Human Research Ethics Committee, viewed 7 July 2015.

<http://www.health.act.gov.au/datapublications/research/human-research-ethics-committee>

Glendall P. 1998. A Framework for Questionnaire Design: Labaw Revisited. *Marketing Bulletin* 1998; 9: 28-39, Article 3.

O'Connor, Rod (A/Prof) 2010, *How to Develop a Valid Questionnaire*. One Day Workshop 3/12/10. Course notes See www.RodOConnorAssoc.com for details about short-courses, viewed 7 July 2015.

Research Methods Knowledge Hub. *Likert Scaling*, <http://www.socialresearchmethods.net/kb/scallik.php> viewed 7 July 2015.