

ASKING



Designers can enlist the participation of people in the design process through a range of design research methods that pose questions to help reveal and discover information that can prove invaluable in resolving complex design issues. One of the simplest and quickest ways of eliciting information from individuals is by asking them directly. Using tools and techniques such as questionnaires, focus groups, interviews and the creation of personas, designers can gain a better understanding of the multifaceted relationships that exist between users and the designed products, services and systems they rely on.

Questionnaires and surveys

The words 'questionnaire' and 'survey' are often used interchangeably and confusion can sometimes arise. Questionnaires, however, are basically a printed list of questions, whereas a survey encompasses a range of different elements, including a sample design, a data collection methodology, data collection instruments, analytic techniques, etc. A questionnaire is only one type of data collection instrument. Generally speaking, questions should be clearly stated and there should be a logical flow from one question to the next. To achieve the best response rates, questions should flow from the least sensitive to the most sensitive and from the general to the specific.

Questionnaires and surveys are a relatively simple yet effective way of obtaining information from people. However, one major disadvantage of written questionnaires is the possibility of low response rates. Questionnaires posted out have a response rate of only around one in four returns, although this rate increases when other media formats and approaches are employed. Another disadvantage of questionnaires is the inability to probe responses and, when nearly 90 per cent of all communication between one individual and another is visual, gestures and other visual cues are potentially lost.

This method can be useful, however, for ascertaining particular traits and values of many users relatively quickly. Questionnaires and surveys can be conducted via email, the internet, by post, by telephone and by researchers asking people for responses on the street, in their workplace or at home. Online surveys have had a significant impact on how researchers undertake research. Manufacturers' websites increasingly use devices such as pop-ups and banner surveys to engage people browsing their sites and gather responses, comments

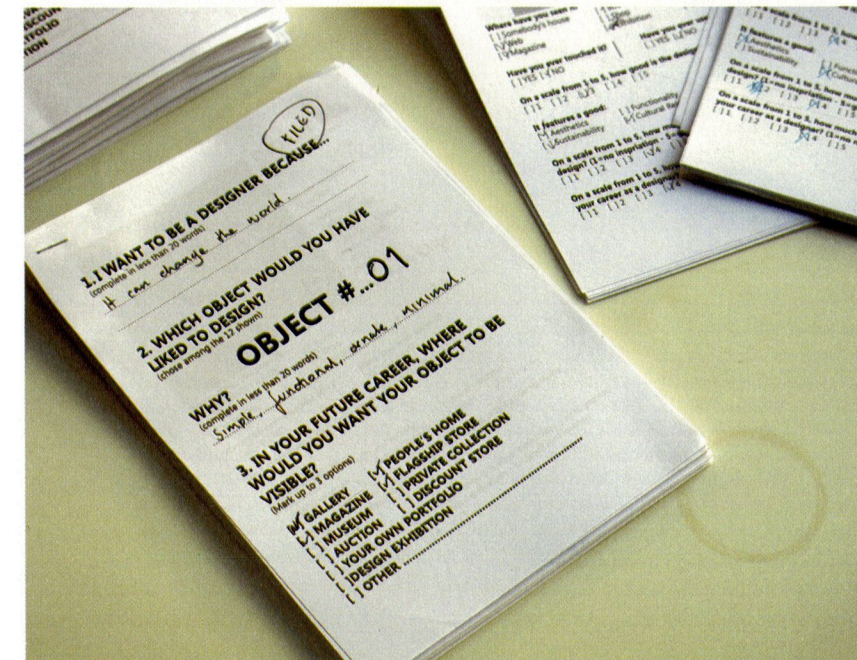


Fig. 1
Example of a printed questionnaire with multiple-option answers to help structure the results.

and data from a far broader range of potential customers. There are a number of easy-to-use, customizable templates you can use to construct a questionnaire or survey online, and conduct your own research within minutes.

There are two main types of questionnaire – fixed-response questionnaires and open-ended questionnaires. Fixed-response questionnaires are ones that present a number of alternative responses to a question. Users are asked to mark the option they feel is most appropriate, or rate the options on a sliding scale, perhaps from 1 'strongly agree', through 2 'agree', 3 'not sure', 4 'disagree' to 5 'strongly disagree'.

Open-ended questionnaires ask the respondent to write down their own answers to questions, such as 'What do you like about your bicycle?' or 'Can you suggest things that would improve your bicycle's performance?'. Open-ended questionnaires are therefore particularly useful during the early stages of the design process, when the design team might not be entirely sure of the important issues associated with the product being developed.

Focus and unfocus groups

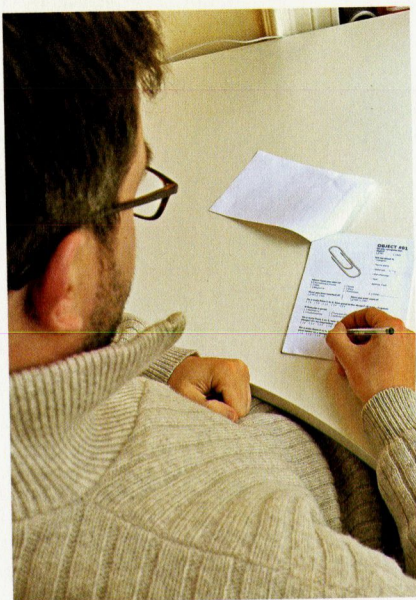
A focus group consists of a number of people brought together in one place to discuss a particular issue or set of issues. The discussions may deal with particular aspects of a designed product, service or system, such as the users' experiences of using a vacuum cleaner, for example. Or they can be more general discussions, exploring, for example, the range of contexts users encounter when using cleaning products in the home. Usually the participants will meet face to face, but focus groups held between people located in different places over large geographical distances using video conferencing are also increasingly common these days.

Focus groups are a form of group interview that capitalizes on the communication between participants to generate information. Although group interviews are often used as a quick and convenient way to collect information from several people simultaneously, focus groups explicitly use group interaction

Fig. 2
A focus group on the topic of 'medical care'.
Participants are role playing.



How to create a great questionnaire



It's important to give respondents enough time and an adequate place to complete their questionnaire.

Before setting off on writing your questionnaire you should use the following steps as a guide:

1. Decide what information you want to gather from the questionnaire.
2. Keep the questionnaire as short as possible, asking only those questions that will provide the information you need.
3. Use a casual, conversational style, making the questions easy for almost anyone to understand.
4. Structure the questionnaire so that the questions follow a logical order and evolve from general to specific.
5. Use multiple-choice questions whenever possible. This helps the respondent to better understand the purpose of your question and will reduce the time it takes to complete the questionnaire.
6. Avoid leading questions that might generate false positive responses. For example, the question 'How great was the service provided by our excellent waiters?' should be 'How was the service provided by our waiters?'.
7. Use the same rating scale throughout. For example, if the scale is from 1 to 5, with 5 being the most positive, keep that same scale for all of the questions requiring a rating.
8. Test the questionnaire on 10 to 15 people before you produce it for mass distribution. Conduct an interview with each of those respondents after he or she completes the survey to determine if your questions were easily understood and easy to answer.

Following these simple steps will help you get the most out of your questionnaire and go some way to obtaining the information you require from people.

Question sequence

In general, questions should flow logically from one to the next. To achieve the best response rates, questions should flow from the least sensitive to the most sensitive, from the factual and behavioural to the attitudinal, and from the more general to the more specific.

Basic rules for questionnaire item construction

- Use statements that are interpreted in the same way by members of different sub-populations of the population of interest.
- Use statements where people that have different opinions or traits will give different answers.
- Think of having an 'open' answer category after a list of possible answers.
- Use only one aspect of the construct you are interested in per item.
- Use positive statements and avoid negatives or double negatives.
- Do not make assumptions about the respondent.
- Use clear and comprehensible wording, easily understandable for all educational levels.
- Use correct spelling, grammar and punctuation.
- Avoid more than one question per item (e.g. 'Do you like strawberries and potatoes?').
- Write down the central idea or use a central multicoloured image that signifies the mind map subject.
- Think up new ideas related to the central idea.
- Use themes to provide the main divisions of the mind map.
- Enclose each theme with an outline that hugs the shape created by the branches.
- Make sure that the lines that support each key word are the same length as the word and 'organically' connect to the central image.
- Print so that each word used is clear and legible.
- Try to use single key words uncluttered by adjectives or definitions.
- Use colour for vividness and to enhance memory recollection.

Completed 'I want to be a Designer because...' questionnaires.

