02 Influence of data collection mode on question design

Introduction

Questionnaire-based data collection modes can be broadly divided into two categories: self-completion approaches, which include paper, online SMS or IVR (voice recognition), and interviewer administered which will usually be face-to-face or by telephone.

Sometimes these approaches are used in combination. For example, interviewers recruiting on-street, administering the screening questions, and then providing a web link to eligible respondents for self-completion later.

Each data collection mode has its own benefits for the question writer, but each also has drawbacks.

Choice of data collection mode

Although the choice of data collection mode has implications for the question writer, the decision on which to employ is usually primarily driven by overall survey design and sample considerations. The lower costs usually associated with self-completion approaches (ie with no interviewer to pay for their time), is often a key consideration. However, this typically needs to be balanced against the difficulties of achieving a representative sample as a high degree of self-selection is common with self-completion studies which may introduce bias, particularly when there is a low response rate. Survey design and sampling are crucial topics, but detailed consideration is outside the scope of this book. Here the focus is on understanding the advantages and limitations that will affect the decisions the question writer faces.

Digitally scripted or non-scripted data collection?

An important factor that overlaps with consideration of the data collection mode is the technology involved in creating the questionnaire and recording answers. For example, will the survey be scripted using survey software with answers digitally recorded? Or will it be non-scripted (typically paper based), requiring later data entry? (This data entry could either be manual or using scanning software.) Whether a survey is scripted or non-scripted also has significant implications for the question writer.

All online self-completion surveys will be digitally scripted and therefore the benefits of using a scripted questionnaire will apply. Online surveys are sometimes referred to as CAWI (computer-aided web interviewing). Paper self-completion questionnaires on the other hand will not be scripted and therefore will share the disadvantages that brings. In contrast, interviewer-administered surveys may be digitally scripted or paper-based and therefore when considering interviewer administered modes the implications for questionnaire design also depend on whether it will be scripted or not.

For face-to-face interviewing the term CAPI (computer-assisted personal interviewing) is commonly used to denote the use of a portable computer that will display a scripted questionnaire on screen for the interviewer. The computers can be either tablet computers with a touch screen or laptop personal computers. Both may have multimedia capabilities. In central locations, desktop personal computers may be used. Personal digital assistants (PDAs) or smartphones can be used in some circumstances where the number of questions is relatively small (Anderson et al, 2011). PDAs have also been used successfully as a self-completion medium.

Computer-assisted telephone interviewing (CATI) brings many of the same advantages of scripting to telephone that CAPI does to face-to-face interviewing.

Benefits of using digital scripting software

For the questionnaire writer, a survey that is digitally scripted presents a number of opportunities in structuring the questionnaire. These include the ability to:

- Rotate or randomize response lists.
- Rotate or randomize questions or repeated question sets.

- Use word substitution in order to customize questions or response lists to the individual respondent, often referred to as 'piping' (using responses given to earlier questions).
- Include real-time edit checks for entry errors or consistency and logic against earlier answers.
- Cope with complex routing. Thus, the next question to be presented to the respondent can be determined by a combination of answers from a number of previous questions.
- Carry out calculations within the interview. For example, an estimate of a household's annual consumption of a grocery product can be calculated. This would be difficult for the respondent to estimate independently, however, they may be able to make more accurate estimates of short-term consumption for each member of the family, from which total household consumption can be calculated. In business-to-business interviewing, volumes of consumption or output can be summed either as a total or within predetermined categories. This information can be used both as inputs to future questions and for question routing.

The combination of being able to make calculations and to randomize response lists has allowed the development of some complex techniques such as adaptive conjoint analysis. This includes an element of instant analysis of responses to determine which and how many questions are then shown. With adaptive conjoint, the responses to questions asked at the beginning of the sequence are used to construct scenarios shown at later questions where the respondent is asked to provide preferences between them.

Even if the routing is not especially complex, the fact that this is handled automatically has benefits for both interviewer-administered and self-completion approaches. In a face-to-face or telephone survey the interviewer's attention can be fully focused on creating a good interviewing relationship or rapport, rather than being distracted by working out what question comes next. In an online self-completion, where motivation to continue or to stay fully engaged may wane if survey mechanics get in the way, the respondent can concentrate on thinking about the questions rather than on navigation so data quality may be improved.

Playing or demonstrating material can also be achieved with some scripted surveys. TV or cinema advertisements can be shown – either to measure recognition or to evaluate content – although the quality with which they are seen will depend on the equipment the respondent is using to view them. Packs can be displayed, and supermarket shelves simulated. This

creates opportunities to simulate a presentation, as it would appear in a store, with different numbers of facings for different products, as an attempt to reproduce better the actual in-store choice situation. Three-dimensional pack simulations can be shown and rotated by respondents.

Direct digital inputting of the answers with a scripted questionnaire means that issues resulting from illegibility of the respondent's or interviewer's handwriting are clearly avoided. This is of particular benefit for numerical questions (handwritten 1s can often look like 7s). There may still be some issues with disentangling spelling and typos for verbatim answers, but generally typed verbatims are easier and quicker to decipher than handwritten answers.

A key benefit in terms of data quality is the ability – as mentioned in the previous list – to script real-time edit checks that can lead to fewer errors and reduce the amount of time spent cleaning data. For example, during a numerical question an immediate check could be made to ensure that the number entered falls within a sensible range. This would help to catch gross typing errors (eg typing '77' instead of '7'). Other simple entry checks can also easily be made (eg checking that only one answer is given for questions that require a single coded response), or checking that numbers add up (eg if asking people to reiterate their last 10 purchases across brands). Logical consistency across answers can also be monitored (eg ensuring that brands identified as being in a purchase repertoire have also been coded at an earlier brand-awareness question). These types of checks can help reduce errors caused by misunderstanding the question or to catch the occasional unhelpful respondent giving nonsense answers (this is especially valuable on self-completion questionnaires where there is no interviewer to encourage engagement). Responsibility for deciding what edits are needed typically lies with the question writer even though they might not be the person creating the actual programmed script.

Challenges of using digital scripting software

Generally, if scripting the questionnaire is a feasible option for the question writer, then this route is usually taken due to numerous benefits discussed; most of which are likely to lead to improved data quality over non-scripted/paper versions regardless of the data collection mode. However, there are a few challenges of which the questionnaire writer needs to be aware:

The script for the questionnaire can be harder to check, especially if the capabilities that it offers for tailoring via piping answers and complex routing

have been fully utilized. The multiple routes through a questionnaire will each need to be tested to ensure they are working correctly. This can involve extensive script checking of many combinations of possible answers. On a paper, non-scripted questionnaire, whose workings are more transparent, there are likely to be more opportunities to spot problems: whether it is the respondent handwriting a comment, or an interviewer feeding back to the researcher that a particular section always seems to be bypassed by the routing.

If the questionnaire writer has used the opportunity to script real-time edits, they need to be confident that these will catch genuine errors and not simply constrain the data on the basis of their assumptions. For example, setting an allowable range for numerically entered data. If set too tightly then genuine answers outside this range will never be captured and this could lead to erroneous conclusions. Mistakes like this are perhaps most likely when creating questionnaires for multi-country studies where the responses might vary considerably. In this case, a question writer might determine an acceptable range based on their own national frame of reference, without international consideration.

Consideration also needs to be given to whether the intelligence that is scripted in should be forward-driven (ie piped through on the basis of answers to previous questions), or backward-driven (ie an error message triggered by an edit check against an earlier answer). A danger of forward-driven programming is that an early mistake may carry over and dictate what the respondent is exposed to later. For example, an early question on brand awareness could determine which brands are shown to respondents during a subsequent question about purchase habits. Brand lists for awareness questions are often lengthy. If the respondent skim reads the list and misses a relevant brand, it would not feature in the later purchase list. This is a particular risk if they are aware of many brands and feel that they have ticked 'enough' even if their awareness answer is not complete. If no piping was involved and the whole list was shown again, then any inconsistencies in awareness could be back filled on the basis of purchase (which is likely to be more accurate, involving fewer brands and thus not suffering from selection fatigue).

Scripting software often requires an answer to be input at each question before the next question is displayed. This prevents respondents or interviewers missing questions by mistake, or by deliberately speeding through. Therefore a 'don't know' option is usually listed to ensure that everyone is able to select an answer. However, it may be that explicitly offering this as a valid response encourages the use of 'don't knows', which are often reported in higher volumes than in non-scripted surveys (in comparison with 'no answer').

It might be thought that an issue with scripted questionnaires would be the difficulty of recording open-ended verbatim responses with both respondent and interviewer typing speeds being slower than writing speeds. However, experience has shown that while this is undoubtedly an issue for some, the overall level of detail to verbatim question can be maintained.

Self-completion surveys

Advantages of self-completion for the question writer

From a questionnaire design perspective, one of the main advantages of any self-completion form is that respondents have time to consider their answers. They can pause while they think about an issue, go away to check something or look up some information. With little time pressure on them, they can write lengthy and full answers to open questions if they wish to do so. This benefit of time is particularly advantageous if any stimulus material that they are required to read is complex or particularly detailed, such as concepts for financial services or business-to-business research.

Self-completion can also benefit from the absence of an interviewer from the process. This removes a major source of potential bias in the responses and makes it easier for respondents to be honest about sensitive subjects. Self-completion modes can be considered as capturing the unedited voice of the consumer, so that open-ended responses can more revealing. In addition, evidence from Kellner (2004) and Basi (1999) supports the view that because there is no interviewer there is less social desirability bias and the respondents answer more honestly. This means that data on sensitive or polarising questions – where respondents feel a need to appear to be socially acceptable – is likely to represent better how the survey population really feels.

Disadvantages of self-completion for the question writer

A major disadvantage is not having an interviewer on hand to clarify questions or to repair misunderstandings. This reinforces the demands made on the questionnaire writer to make the questionnaire clear, unambiguous and engaging.

The presence of an interviewer also gives the respondent a reason to continue with an interview that they might otherwise have stopped, or to continue to make an effort even though they might be losing interest. While the quality of answers is likely to be affected by tedium and excess length regardless of data collection mode, the impact is likely to be greater for self-completion surveys. Therefore, there is even greater onus on the question writer to consider how intrinsically interesting the topic is likely to be for the respondent and to see the questionnaire completion experience from the respondents' point of view. While many options for making surveys more engaging will apply to all modes, thinking how to make the questionnaire more visually appealing will be additionally important for self-completion surveys, and the design time and capabilities to do this need to be factored in (see Chapter 11).

Having time to consider answers – while often an advantage of self-completion surveys – is not always what the questionnaire writer wants. With attitudinal and image questions, it is often the first reaction that is sought, rather than a considered response. An instruction in the question for respondents to give their first reaction cannot be enforced, nor encouraged in the way that an interviewer can, either face-to-face or by telephone.

Online self-completion

There are several different ways of carrying out surveys using the internet. The questionnaire can either be delivered by email or accessed via a web page. The main approaches are summarized by Bradley (1999) as follows:

- **Open web**: a website open to anyone who visits it.
- **Closed web**: respondents are invited to visit a website to complete a questionnaire.
- **Hidden web**: the questionnaire appears to a visitor only when triggered by some mechanism (eg date, visitor number, interest in a specific page). This includes pop-up surveys.
- **Email URL embedded**: a respondent is invited by email to the survey site, and the email contains a URL or web address on which respondents click.
- **Simple email**: an email with questions contained in it.
- **Email attachment**: the questionnaire is sent as an attachment to an email.

The last two of these (the simple email and email attachment) are rarely used in commercial research for a variety of practical reasons. Attachments require respondents to download the questionnaire, complete it and then return it. This requires a lot of cooperation and has been shown to lead to low response rates. Questionnaires embedded within emails can have their layout distorted, depending on the email software with which they are opened. Both of these approaches also suffer from the inability to include complex routing. Most practitioners use questionnaires hosted on a website to which respondents are invited or routed in some way. This book looks only at this dominant form: the web-based online questionnaire.

The invitation to the website or questionnaire can be delivered in a number of ways:

- By link in an email to people on a panel or to a mailing list of customers or people who might qualify for the survey.
- Pop-ups used to direct respondents to the questionnaire while they are visiting another site.
- Invitations can be posted as banner ads on other sites, such as ISP home pages.
- Respondents can be directed to the site following a face-to-face or telephone recruitment interview, or from an online advertisement for respondents (Nunan and Knox, 2011).

Each of these presents different issues regarding how representative of the target population the sample is, in particular where the population contains a significant offline element. These are survey design issues outside the scope of this book and are well covered elsewhere. In addition to internet-based surveys, IVR and SMS self-completion modes are options, but as they usually constrain the survey to a couple of questions they will not be considered separately here. The general principles of question composition will, however, still apply to these modes.

Advantages and disadvantages of online self-completion for the question writer

With scripted self-completion questionnaires, it is possible to control whether the respondent is able to look ahead, or go back and change previous answers. This capability offers the question writer the opportunity to ensure that questions are presented in the sequence that the researcher wants

them to be answered. This also means that – in comparison with paper self-completion – it is possible to ask spontaneous questions without the risk of the respondent being influenced by later questions.

Many online studies use respondents who have opted in to panels to take part in research projects. Usually, panellists are rewarded with some kind of incentive system – typically collecting points related to the volume of surveys completed. The panel providers have a variety of quality control procedures to catch rogue respondents, such as 'speeders', who may simply be trying to amass points. From the question writer's perspective it is especially important to ensure that their screening questions successfully disguise the eligibility criteria so that respondents can't work out themselves how to qualify for surveys. At the same time, a panellist may well have several surveys to choose from during the course of a typical week, and so the writer also has to ensure that the initial survey introduction and early questions are immediately engaging.

When designing an internet-based survey it is vital that the question writer considers the likely device on which the survey will be taken. This is usually a mix of computers, mobile phones and tablets, with the proportion of respondents using handheld devices continuing to increase. Smaller screens and portrait orientation place additional constraints on the layout and presentation of questions (see Chapter 10).

Paper self-completion questionnaires

Paper self-completion questionnaires are typically sent by mail to people who qualify or are thought to qualify as eligible for the study. They may be selected from a database, such as the customers of a business or the members of an organization. In many countries the national database of postal addresses is comprehensive and up to date in terms of listing residential properties, and as such using this for postal self-completion surveys potentially provides the most inclusive way of contacting all types of respondents if a nationally representative sample is required. Balanced against this, however, is the typically low response rate, especially if postal return is required with the additional effort this involves. Sometimes postal is used for the means of contact, but with a web link provided so that the actual questionnaire is conducted online. This allows the benefits of a scripted mode to be utilized.

Paper self-completion questionnaires are also extensively used in convenience sampling of specific target populations (eg distributing questionnaires on-site to people attending an event, staying at a hotel or eating in a restaurant).

Advantages and disadvantages of paper self-completion for the question writer

There are few obvious advantages of paper self-completion for the question writer – this approach is usually adopted if it is the most practical solution to reach a specific target audience at a specific location ie by handing out paper questionnaires.

With a paper self-completion questionnaire, it is impossible to stop respondents from reading through all of the questions before responding. Certain questions therefore cannot be included. It is not possible to ask a spontaneous brand-awareness question if the questionnaire includes brand names in any of the other questions.

Where prompt material has been sent to the respondents for their reaction, it is also difficult to retrieve all of it. This can present a security concern if the material is commercially sensitive.

Interviewer-administered questionnaires

Advantages of the interviewer's presence for the question writer

The presence of an interviewer can be a benefit for the question writer for two main reasons. First, the rapport that a skilled interviewer can build with a respondent can create a helpful environment, encouraging thoughtful answers and maintaining momentum throughout the interview. Second, the interviewer is on hand to deal with any issues or queries.

Respondents can be encouraged by the interviewer to provide deeper responses to open questions. At the simplest level, a series of non-directive probes (eg 'what else?') can be used by the interviewer to extract as much information as possible from the respondent. If a bland and unhelpful answer is anticipated, the interviewer can be specifically asked to obtain further clarification. For example, the question, 'Why did you buy the item from that shop in particular?' is likely to get the answer, 'Because it was convenient.' An interviewer can be given an instruction not to accept an

answer that only mentions convenience, and the questionnaire will supply the probe: 'What do you mean by convenient?'

Sometimes a question can be unintentionally ambiguous. Although this should have been spotted and corrected before the questionnaire was finalized, it is possible for such questions to slip through. If respondents cannot answer because of an ambiguity, then they are able to ask the interviewer for clarification. Interviewers, though, must be careful not to lead respondents to a particular answer when giving their clarification, and should report back to the researcher that clarification was required.

Interviewers can sometimes spot that respondents have misunderstood the question by the response they give. This may be because of the answer given or because it is inconsistent with previous answers, or simply inconsistent with what the interviewer already knows (or suspects) about the respondent. Such inconsistencies can be challenged, the question repeated, and the response corrected if necessary.

Disadvantages of the interviewer's presence for the question writer

The accuracy of the data can be influenced by the interaction between interviewer and respondent. Although interviewers are instructed to administer the questions exactly as they written it is not uncommon to hear an interviewer change the wording or paraphrase a question. The root fault may lie with the question writer however for creating the situation in which the interviewer feels their actions are necessary to be able to manage and complete the interview, for example:

- The interviewer finds the wording stilted. Anyone who has written a question to be spoken will have sometimes found that – however natural it appears on the page – when spoken aloud it sounds awkward and does not flow. Interviewers may paraphrase accordingly.
- The interviewer may think that the question is too long. One of their aims is to maintain the attention of the respondent, and a long and detailed question with several sub-clauses detracts from that.
- The interviewer may think the question is repetitive, either through repetition within the question, repetition of instructions or descriptions between questions or may think that the question has already been asked. Again, to keep the respondent engaged they may omit what they see as duplication.

- They may not understand the question themselves, or feel that the respondent is unlikely to. With business-to-business interviews, there may be terminology that is completely new to the interviewer who then mispronounces key words or substitutes them with other, more familiar, words. With consumer interviews, overuse of marketing jargon can have the same result. A thorough briefing of the interviewers in the technical terms used and the provision of a glossary of terms that are likely to be used by respondents is worthwhile here. Such a glossary may also be of value to coders and analysts in later stages of the survey process.

If a question is paraphrased, there is a chance that its original meaning (and subsequent response) are changed. The role of the interviewer is to hold a conversation with the respondent that fulfils the aims of the researcher. The question writer must therefore ensure that questions are written in a manner to best achieve this.

Interviewers may record responses inaccurately in a number of ways:

- They may simply mishear the response – this is particularly likely to happen if the interviewer's attention is focused more on the mechanics of applying the interview. Scripted questionnaires reduce these challenges (eg by automatically handling routing to the next question), but interviewer distraction can be a common problem with complex, non-scripted paper-based surveys.
- With open-ended (verbatim) questions, interviewers may not record everything that is said. There is a temptation to paraphrase and précis the response, again to keep the interview flowing and so as not to make the respondent wait while the full response is recorded.
- It is common to provide a list of pre-codes as possible answers to an open question that only the interviewer sees. Their task is to listen to the answer given then scan the list and code the answer that most closely matches. This is open to error. None of the answers may match exactly what the respondent has said. The interviewer then has the choice of taking the one that is closest to the given response, or there is frequently an option to write in verbatim responses that have not been anticipated. There is a strong temptation to make the given response match one of the pre-coded answers, thus inaccurately recording the true response. The pre-coded list may contain similar, but crucially different answers. The onus is on the question writer to ensure that these are carefully grouped to give the interviewer most chance of seeing subtle differences and selecting the right answer.

- A long and tedious interview affects not only the respondent but also the interviewer. Like everybody else, interviewers make mistakes. Responses can be misheard, or a wrong code recorded, and these errors become more frequent if the interviewer is tired of the interview. With a tedious or repetitive questionnaire, the interviewer may feel embarrassed to bore the respondent. The interviewer could then respond by reading through the questions faster, leading to an increase in the number of errors.

The presence of an interviewer is also likely to increase the chance of social desirability bias through respondents wishing to impress or appear polite. This is covered in detail in Chapter 16.

Face-to-face interviewing

In the UK, face-to-face interviewing was the dominant mode of data collection for many years prior to the advent of online surveys. Face-to-face surveys are expensive to conduct compared to online surveys and are therefore mainly used for surveys requiring a representative sample of a population; access to a difficult-to-reach sample; or where there is product or material to be demonstrated (eg car clinics or test kitchens).

In countries where there is a wide geographic spread of the population, such as the United States, face-to-face interviewing has never accounted for the same high proportion of interviews and is mainly limited to mall-intercepts.

Advantages and disadvantages of face-to-face interviewing for the question writer

One clear advantage of using face-to-face interviewers over telephone interviewers is the ability to show prompt cards to respondents. These cards can be used in questions where prompted awareness or recognition of names is required; where respondents are being asked to select their answer from a scale; or where it is desirable to prompt with a list of possible responses.

Social desirability bias is likely to be greatest when the interviewer is physically present, so the question writer needs to consider what steps they can take to reduce this.

Telephone-administered questionnaires

Most of the advantages enjoyed by telephone interviewing over face-to-face are to the benefit of survey design rather than to questionnaire design. There are efficiencies in cost and speed, particularly where the sample is geographically dispersed, or where – as often happens in business-to-business surveys – the respondents are prepared to talk on the telephone but not to have someone visit them.

Advantages and disadvantages of telephone interviewing for the question writer

One advantage for data accuracy is that the telephone as a medium gives more anonymity to the respondents in respect of their relationship to the interviewer. This can help to diminish some of the bias that can occur as a result of respondents trying to impress or save-face in front of interviewers, but not as much as removing the interviewer altogether. It is also the experience of many researchers that respondents are more prepared to discuss sensitive subjects such as health over the telephone, rather than face-to-face with an interviewer. Fuller responses are achieved to open questions, and they are more likely to be honest because the interviewer is not physically present with the respondent. Telephone interviewing thus becomes the medium of choice for interviews where there is a need for an interviewer-administered interview, coupled with a sensitive subject matter.

From the point of view of the questionnaire writer, telephone interviewing has a number of disadvantages. First, it places constraints on questions that involve prompted lists of answers that require the respondent to hear all options before answering. These might include list of reasons or attributes from which selection of the most appropriate is required, or semantic rating scales where each scale point must be understood before answering. These lists must be short and simple enough for the respondent to hold in their heads. For longer lists of response options, or repeated lists such as scales, respondents can be asked to write them down but their compliance and accuracy in doing this is not guaranteed.

With telephone interviewing, respondents have to remember or write down response lists. Don't make these too long, or they won't be able to remember all the options or bother to write them down.

The inability to show stimulus material such as concepts or advertising is another drawback of telephone interviewing. However, radio adverts or the soundtrack from TV adverts can be played over the telephone as a prompt for recognition. Care must be taken to distinguish responses that arise because of the quality of the recording as heard by the respondent – which can be variable – from those relating to content.

It is possible to mail material to respondents for them to look at before or during the telephone interview. This creates a lengthy and more expensive process. The respondents must be recruited and their agreement obtained in an initial interview. The material then has to be sent, and the main interview can only be carried out once the material has arrived.

It may be desirable for respondents not to see the material before a certain point in the interview. In that case, the initial contact would complete the interview up until that point, when respondents would be asked permission for the researcher to send them material and to call them again to complete the interview. This procedure runs the risk of a high proportion of respondents refusing to be sent 'mystery' material.

With some populations, it is possible to speed up this process. In business-to-business studies, it is more common to email material to respondents. This means that the gap between the first and second parts of the interview can be reduced to minutes. By reducing that period, fewer respondents are lost between the two stages.

Another way of showing material, particularly in business-to-business surveys, is to ask the respondent to log on to a website where the material is displayed. The respondent can log on while the interviewer continues to talk on the telephone. Interviews started on the telephone can be continued online, by asking the respondent to log on to a website that contains the remainder of the questionnaire together with the prompt material.

Comparability of data across collection modes

Reflecting upon the points discussed in this chapter, it is easy to understand why the data collection approach employed could influence the data that is collected. This is clearly a particular issue when seeking to draw comparisons with data collected via different modes.

The distribution of usage of points on rating scales, for example, has been shown to be different between modes, with less extreme positive points

reported through online surveys than is found through face-to-face or telephone interviewing. However, Cobanoglu et al (2001) have shown that mean scores for data collected via a web-based questionnaire are the same as for other self-completion methods, postal and fax surveys.

There are many papers that shed some light on these differences but it is difficult to draw simple overarching conclusions given the range of factors and the range of subject matters, target populations, cultures etc. Although adopting the same mode might seem to be the best solution, there can be circumstances in which a multi-modal approach is preferable with sample considerations outweighing the argument for data mode comparability. For example, although online panels might provide the best route for accessing the majority of the sample, older people on an online panel may be less representative of their age group and thus an alternative approach may be needed to better reach them.

CASE STUDY Whisky usage and attitude

Data collection mode

We must now consider which we are going to use. There are three main considerations:

- Feasibility – can we reach this target audience in the time scale required?
- Cost – what are the relative costs?
- Questionnaire – what are the issues regarding the different types of questionnaire?

Our interest here is principally in the last of these. However, a consideration of the feasibility may help us eliminate some options.

Feasibility

Our target sample are drinkers of whisky. From a recruitment sample of all adults aged 18 or over, we can screen and identify people who qualify.

We can rule out a self-completion paper questionnaire distributed by post because of the lack of control over when it is completed, which is crucial here because timing of each stage must coordinate with the advertising schedule. Response rates would also be a major issue.

We are therefore left with online, face-to-face and telephone data collection to consider.

Questionnaire issues

We must consider what we are likely to encounter when writing the questionnaire and which media are most appropriate.

Five considerations have been identified:

- We shall want to show prompts of the advertising and possibly of the brands to avoid confusion.
- We shall want to ask about how much whisky respondents drink, and their responses could be subject to social desirability bias.
- One of our key questions will be spontaneous brand awareness.
- Lists of brands will need to be randomized between respondents in some questions.
- Because of the need to ask about both in-home and out-of-home drinking, we shall want to rotate the order in which these are asked between respondents.

Table 2.1

Issue to consider	Online	Face-to-face	Telephone
Showing prompts of brands and advertising	Yes	Yes	No
Asking about weight of drinking (minimizing social desirability bias)	Best	Worst	Middle
Spontaneous brand awareness	No	Yes	Yes
Randomized brand lists	Yes	Yes	Yes
Rotating order of questions	Yes	Yes	Yes

With either online or face-to-face we can show prompt material. This is not possible over the telephone.

Face-to-face interviewing suffers the most from social desirability bias, therefore consumption habits reported this way are likely to be the least reliable.

Spontaneous brand awareness will be one of our key questions. In an online questionnaire, respondents will enter this as free text. There could be some confusion between similar brands because of incomplete responses (eg Johnnie Walker Red Label and Johnnie Walker Black Label), which interviewers could be alerted to.

Randomizing and rotating are possible in all modes.

Conclusion

Each of the three modes have potential weaknesses. Telephone interviewing, however, can be ruled out because of the inability to show material given the inclusion of a brand recognition question.

We then have to make a judgement between improving the accuracy of the weight of drinking or avoiding confusion on some of the brand names in the spontaneous awareness question. We prefer to get the sample correct and maximize the accuracy of the amount drunk. In the spontaneous brand awareness data our main interest will be in Crianlarich, which should not suffer from any confusion. The questionnaire writer's recommendation, therefore, is to use an online questionnaire.

Cost issues

Aside from questionnaire considerations, the cost of an online survey using an online access panel will be considerably less than any form of face-to-face interviewing and is likely to be a significant factor in the choice of the data collection mode.

Key take aways: influence of data collection mode on question design

- Choice of data collection mode is usually primarily driven by overall survey and sample design considerations, but the decision will have implications for the question writer. The choice may also affect the way the respondent answers. A consistent data collection approach can aid comparability with other surveys.
- Digitally scripting questionnaire software, whether for online self-completion or for computer-assisted, interviewer-administered surveys, offers many benefits to the question writer:
  - Management of structure and flow allows the respondent or interviewer to focus on the questions rather than navigation.
  - Adaptive question wording creates a more personalized and engaging conversation.
  - Opportunity to build in real-time edits to reduce errors.