



surveys is that response rates are usually very low. Questionnaires can furthermore trickle in over a long period of time. For these reasons, postal surveys are rarely used in market and audience research (Van Vuuren & Maree 1999).

Several techniques can, however, be employed by researchers in an attempt to raise response rates. A number of reminder letters are usually sent out, but add to the cost of the survey. Various incentives can also be offered to encourage respondents to complete and return questionnaires. Sometimes respondents are promised that their names will be entered into a prize draw once their questionnaire has been returned. An ingenious form of incentive was offered in a recent survey conducted on behalf of Elsevier Publishers among authors who had published articles in Elsevier journals. The publisher undertook to donate a particular amount to a charity on behalf of the respondent if he or she completed and returned the questionnaire. The respondent could even make a choice between three charities. In this way, an appeal was made to the conscience of the respondent to make sure that a charity of his or her choice did not lose an amount of money due to the fact that he or she had not completed and returned the questionnaire.

10.7.3 Group-administered surveys

The group-administered survey is yet another form of self-administered survey. Respondents are gathered in a group, questionnaires are handed out to each and the questionnaires are completed within the group situation. This form of surveying is particularly appropriate where the population lives or works closely together or gathers regularly for other reasons. It is often used by university lecturers, who can ask students attending a class to complete a questionnaire during class time.

group-
administered
surveys

There are several advantages to this form of surveying:

- A large number of questionnaires can be completed within a relatively short period of time with a limited amount of effort.
- The researcher can furthermore control the circumstances under which the questionnaires are completed.
- The researcher or a fieldworker is also available to clarify instructions or questions and to render assistance where needed.

The presence of the researcher or a fieldworker could, however, be intimidating and make respondents feel that their anonymity is



threatened. They could therefore feel less free to express their true opinions and feelings. This type of survey is therefore not appropriate for investigating sensitive issues. Interviewer bias could also result from the presence of the researcher or fieldworker.

10.7.4 Computer surveys

computer
surveys

The development of computer technology has opened new ways for conducting questionnaire surveys. In this form of self-administered surveying, the questionnaires are sent to the respondents via e-mail. After completion, the questionnaire is usually also sent back via e-mail. An important prerequisite for internet surveys is that all elements in the population should have internet access and a list of the e-mail addresses of the population should be available.

The technology that has been playing a major role in establishing international information highways – the internet – has indeed made global surveys possible. Questionnaires can be distributed with relative ease and speed to any e-mail address in the world. However, as a form of self-administered survey, internet surveys hold the same disadvantages as discussed in section 10.7.1. Like postal surveys, response rates can also be low for internet surveys, and special measures should be taken to encourage the full completion and return of questionnaires.

10.7.5 Face-to-face interviews

face-to-face
interviews

Face-to-face interviews are the original way of collecting survey data, and are still used extensively today – particularly in media and marketing research (Van Vuuren & Maree 1999). Face-to-face interviews in questionnaire surveys should, however, be distinguished from qualitative, in-depth individual interviewing. Whereas it is possible to deviate from the interview schedule and to do probing in in-depth interviews, the interview in questionnaire surveys is usually focused on the completion of the questionnaire. Interviews are usually conducted at the homes of respondents by trained interviewers. The interviewer will assist the respondent to complete the questionnaire by asking the questions and recording the responses on a standardised interview schedule. Only the responses on the questionnaire are recorded. Additional information such as facial expressions is generally not important.

Although this method of questionnaire interviewing is probably the



most expensive, it is in most cases superior to all the other types of surveying for the following reasons (Babbie 2001; Neuman 2006; Van Vuuren & Maree 1999):

- It is the most appropriate method in situations where members of the population are illiterate or semi-literate. In developing countries like South Africa, it is the only option for surveys that include, for example, rural areas where illiteracy is still prevalent.
- It allows the completion of relatively long and complex questionnaires.
- Visual prompts and other aids can be used.
- The circumstances under which questionnaires are completed are closely controlled. Fieldworkers can also verify the most important demographic details of respondents.
- The interviewer can provide clarification – in rural areas of South Africa, interviewers often need to explain questions in vernacular languages.
- The presence of an interviewer usually constrains ‘don’t know’ and other kinds of irrelevant responses.
- Poorly completed questionnaires are limited, as interviewers are instructed that all questions should be completed for each respondent. In most cases, interviewers are only paid for fully and correctly completed questionnaires.
- Response rates are usually high as interviewers are instructed and paid to implement the sampling plan and to complete the required number of interviews. Properly executed interview surveys usually achieve response rates of 80% or higher.

The disadvantages of face-to-face interviews include the following:

- The high costs involved in the recruiting, training and paying of interviewers and covering their travelling expenses; due to these costs, this kind of survey can seldom be afforded by individual researchers.
- A very important disadvantage is that the interviewer may influence the responses, especially in cases where sensitive or highly politicised issues are covered.

The interviewers are, indeed, a very important factor in face-to-face surveys (Babbie 2001). In large-scale surveys, a relatively large number of interviewers are usually involved. They are usually paid per completed questionnaire, while their travelling and other expenses are also covered. Where a number of interviewers are involved, their efforts need to



be controlled and a number of supervisors also need to be recruited, trained and paid. Both interviewers and controllers need to be properly trained in order to ensure that the sampling plan will be implemented correctly and that the questionnaires are completed in a way that will ensure the survey yields data of a high quality. The interviewers also need to be sensitised to the fact that they should not act in a way that will influence or pressurise respondents to respond in a certain way.

Another golden rule is that interviewers – notwithstanding their position in society – should never be trusted completely even when they have been trained intensively. Survey interviewing is hard work and the temptation to cut corners is often irresistible. When seasoned survey researchers come together, stories abound on how they have been taken in by interviewers. The following incident is but one example. A researcher once conducted a survey in the Gauteng area among adults of 18 years older on issues related to social identification. In one census-enumerator area selected for the study, a secondary school teacher was recruited as interviewer. This interviewer should have visited a number of selected households in the area and conducted one face-to-face interview per household. Instead, she handed the questionnaires out to the grade 10 learners in one of her classes and asked them to complete the questionnaires at home. This roguery was discovered when one of the learner's parents phoned the researcher to complain about the nature of the questions, which she did not think were appropriate for children (the telephone number of the researcher was given in the introductory letter to the questionnaire).

In order to avoid tricks like these and to ensure the integrity of the data, a telephone number and address is usually obtained for each completed questionnaire. Survey organisers usually go back to about 10% of the households where questionnaires were completed to ensure that the correct respondent was selected by means of the within-household sampling process, that an interview really took place, to control the correctness of demographic details, and so forth. However, to ensure the anonymity of respondents, the telephone numbers and addresses of respondents are usually not captured in the final data set.

10.7.6 Telephone interviews

telephone
interviews

Telephone interviews are another form of personal interviewing. However, in this instance, the interviewers conduct the interviews per



telephone. In the developed world where telephone penetration is high, telephone surveys are often conducted as a cost-effective alternative to face-to-face interviews (Van Vuuren & Maree 1999). Telephone directories can serve as sampling frames or random telephone numbers can be generated by means of RDD (see section 10.6). However, due to the relatively low penetration of both landline and cellular phones, in particular in rural areas, telephone interviews are less useful in developing countries.

The advantages of telephone surveys are the following (Neuman 2006; Van Vuuren & Maree 1999):

- Telephone surveys are a quick and easy way of surveying, as a staff of interviewers can conduct a large number of interviews in a relatively short period of time.
- A wide geographical area can be covered. Although the costs of an interviewer and a long-distance call will be more than the costs of the stamps required for a postal survey, telephone interviews avoid the disadvantages such as low return rates of postal surveys.
- As already indicated, telephone interviews have a high response rate, especially for short interviews.
- Telephone surveys work well for surveys on sensitive issues as a sense of anonymity is better retained than in face-to-face interviews.

The disadvantages of telephone surveys are the following:

- The amount and complexity of information that can be gathered is limited due to resistance to long telephone interviews. Telephone questionnaires should therefore be relatively short, simple and straightforward.
- Visual aids such as those employed in readership surveys cannot be used (see Chapter 12).
- Long-distance calls can be expensive, but the costs are usually less than for face-to-face interviews.
- The main drawback is, however, that sampling bias is almost inevitable where significant sections of the population do not have access to telephones. However, even in developing countries, telephone interviews can be used for populations with high telephone penetration such as urban populations.



10.7.7 New technological developments and survey interviewing

As we have already seen in the discussion of internet surveys, many of the new technological developments that influence people's lives have also opened new possibilities for survey research. Recent innovations in computer technology in particular are making not only the work of interviewers easier, but also the completion of questionnaires in the case of self-administered surveys. Some of these techniques are the following (Babbie 2001:265):

- *CAPI (computer-assisted personal interviewing)* – As discussed in Chapter 12, interviewers carry laptop computers with them and a respondent's responses are recorded on the computer.
- *CATI (computer-assisted telephone interviewing)* – This technique is basically the same as CAPI, but the interviews are conducted per telephone.
- *CASI (computer-assisted self-interviewing)* – A research worker brings a computer to the respondent's home and the respondent reads the questions and enters his or her responses on the computer.
- *CSAQ (computerised self-administered questionnaires)* – The respondent receives the questionnaire on a computer disc or any other means, runs the software which asks the questions and accepts the respondent's responses. The data file is then returned to a research worker or the research organisation.
- *TDE (touchtone data entry)* – The respondent needs to initiate the process by calling a number given by the research organisation. The call prompts a series of computerised questions which the respondent answers by pushing buttons on the telephone keypad.
- *VR (voice recognition)* – Instead of using the telephone keypad, as in TDE, the system is enabled to accept and record spoken responses.
- *Personal digital assistants (PDAs)* – PDAs are electronic devices often used in media research (see Chapter 12). They are pre-loaded with questionnaires and distributed to respondents. Respondents are required to carry the PDAs with them. At various times throughout the day the devices ring, asking the respondents to complete a short questionnaire. After a pre-determined period, the devices are returned to the research organisation for the off-loading of the data (Webster et al. 2006).

According to Babbie (2001), research has indicated that these devices



are generally more efficient than conventional methods such as the traditional pen-and-paper method of completing questionnaires. It furthermore does not appear that their usage gives rise to a reduction in the quality of data. Some of these techniques such as CAPI are nowadays used in audience measurement surveys such as AMPS (see Chapter 12). However, as most of these techniques are relatively new, more research needs to be done to determine their impact on questionnaire surveying.

10.8 QUESTIONNAIRE DESIGN: THE ART OF ASKING QUESTIONS

There is an English saying: ‘if you ask a silly question, you get a silly answer’ (Mytton 1999:37). This is nowhere more true than in the construction of questionnaires. As already mentioned, the questionnaire is the basic data-gathering instrument of the survey. No matter how much care has been taken with all the other steps in survey research, if the questionnaire is not well-constructed, the data will be spoiled. Asking questions is therefore a crucial skill that survey researchers need to develop. It is unfortunately not a skill that is quick and easy to acquire. There is, however, a logic to questionnaire construction that can be learned with time, practice, experience and dedication.

questionnaire
design

The problem that questionnaire researchers have to deal with is that human behaviour is wonderfully varied and complex (Mytton 1999). No two people are exactly the same. They differ in their media consumption behaviour, opinions and ways of thinking about issues. The media researcher, on the other hand, wants to summarise and generalise with regard to the varied opinions, attitudes and behaviour of individuals and to categorise media consumers into categories that make a variety of forms of analysis possible. In doing so, a complex reality is simplified and distorted in a certain way. However, as it is too time-consuming to describe in detail the media behaviour of each individual in a population, some degree of summarising, aggregation and/or generalisation is inevitable in media research. The questionnaire is the main instrument that makes this possible. We put the same questions to each individual included in a sample. Their combined responses provide a picture of the whole.

However, just as individuals differ with regard to almost anything, they also differ with regard to the way that they interpret and respond to any question put to them. Questionnaire questions consequently differ



distinctively from questions habitually asked in everyday conversations (Mytton 1999). For example, you may ask a friend: ‘which television channels do you watch?’ Your friend may mention one or two channels. However, your friend may assume that you mean ‘which television channel do you watch the most’ or even ‘which programme do you like the most?’ Your friend’s answer will depend on the way that he or she interprets your question. If you put the question to somebody else, it might be interpreted quite differently. In order to avoid such variation, questionnaire questions should be precise; vagueness and ambiguity need to be avoided. Mytton proposes the following questions that need to be asked by survey researchers for every question that is included in a questionnaire:

- *Will all respondents understand the question in the same way and give similar (not the same) responses?* Vague, imprecise questions should be replaced by precise, unambiguous wording. A question such as ‘which television channel do you watch most frequently?’ is, for example, more precise and will yield more consistent responses, that is, it can be expected that everyone will understand the question in the same way. A question such as ‘have you watched *Generations* in the past two weeks?’ is also a better option and will yield more reliable responses regarding habitual watching behaviour than merely asking ‘do you watch *Generations*?’ In the latter case, a respondent can answer ‘yes’ even if he or she has watched the programme only once a year or two ago.
- *Can it be reasonably expected that respondents will know the answer or be able to answer the question?* This question is of paramount importance for media research. We often ask people questions about their media behaviour – for example, the radio stations they listen to, the television channels they watched and/or the newspapers they read the previous day, week, two weeks or even a longer period back. However, will they be able to remember? Questions asking people in great detail about behaviour that took place too far in the past might be a waste of time. Considerations like these have given rise to the development of an array of audience measurement practices, as discussed in Chapter 12. In many questionnaires, people are also requested to give information on their household income. However, only the head(s) of a household will probably be able to provide such information.
- *Can it be reasonably expected, even if a respondent knows the answer,*



that he or she will tell the truth? Even when people know the answer to a question, they may be hesitant to reveal the correct information. Despite assurances of confidentiality, people might, for example, be reluctant to reveal their income as they could fear that the government, taxman – or even family members – might get hold of the information. One solution is not to request precise information, but to show a range of income categories from which respondents have to make a choice. The socioeconomic status of a household can also be established by considering other factors such as ownership of items such as radios, television sets, cars, and so forth, as is being done by means of the SAARF Universal Living Standards Measure (SAARF LSMTM) (SAARF sa). People might also be afraid or hesitant to reveal sensitive or controversial behaviour, such as visiting pornographic websites.

- *Will the question, as stated, provide the information that you want?* The dilemmas associated with question wording have already been touched on in the introduction to this section. It needs furthermore to be considered that there is not a single question format that will suit all the researcher's information needs. The wording and format of questions should be varied according to particular information needs. Question format and wording will be discussed further in the following sections.

10.8.1 Open-ended versus closed-ended questions

There are basically two types of questions in a questionnaire, namely open-ended and closed-ended questions (Babbie 1991). In open-ended questions, respondents are asked to formulate and write down their own answers to a question, for example:

For what purposes do you use the internet?

In closed-ended questions, respondents are requested to select their answer from a list of response options that are provided, for example:

For which of the following purposes do you use the internet? Tick off the functions that you use:

open-ended
and close-
ended
questions



<i>E-mail</i>	_____
<i>Internet banking</i>	_____
<i>Internet shopping</i>	_____
<i>Seeking information</i>	_____
<i>Visiting chatrooms</i>	_____

One can also combine the two methods by adding 'Other' to the response options in the abovementioned example. Under the 'Other' category, individual respondents are free to describe, in their own words, any additional purposes not mentioned in the list of response options.

Both open-ended and closed-ended questions have distinct advantages and disadvantages (Mytton 1999; Neuman 2006; Rosnow & Rosenthal 1996). The advantages of open-ended questions lie in the fact that they:

- offer opportunities to express feelings and experiences spontaneously;
- do not lead respondents by suggesting specific answers;
- provide exploratory, unanticipated or novel findings;
- allow respondents to answer in their own language, thus increasing rapport;
- permit creativity and self-expression;
- can provide rich detail on a complex issue or an issue with which the researcher is not very familiar.

The disadvantages of open-ended questions are the following:

- time-consuming for the researcher (who has to analyse and code each response) as well as for the respondents and interviewer;
- often invite off-the-mark or rambling responses;
- difficult to assess the reliability of open-ended questions;
- comparisons and statistical analyses are difficult;
- articulate, highly educated respondents and respondents with strong viewpoints on the issues at hand have an advantage;
- language plays an important role – in other words, respondents who have difficulty in expressing themselves in a particular language are at a disadvantage.

The advantages of closed-ended questions tend to be the complete opposite of the disadvantages of open-ended questions:

- easier and quicker for respondents to answer closed-ended questions, thus the work of interviewers becomes easier;



- much easier and quicker to code, capture and analyse than open-ended questions;
- direct comparisons between the responses of individual respondents, groups of respondents and across surveys are possible;
- closed-ended questions force respondents to reply according to the dimensions that are of interest to the researcher;
- the categories of closed-ended questions help to explain what is wanted to the respondent;
- irrelevant responses are reduced;
- closed-ended questions make it easier for respondents to answer sensitive questions;
- less articulate or less literate respondents are not at a disadvantage.

Again, the disadvantages of closed-ended questions are almost the complete opposite of the advantages of open-ended questions:

- the response categories provided by the researcher could miss the point altogether or important issues could be left out;
- closed-ended questions could suggest ideas and elicit responses that the respondent would not otherwise have given;
- closed-ended questions could enforce simplistic answers to complex issues;
- clerical mistakes (or marking the wrong response) are possible.

It is up to the researcher to decide whether a closed-ended or open-ended question is the most appropriate in a particular case. However, novice questionnaire researchers tend to prefer (and overuse) open-ended questions – probably because open-ended questions are easier to construct. However, one of the most important disadvantages of open-ended questions is that they are extremely time-consuming and difficult to analyse and report (Mytton 1999). Consequently, the questionnaires for large-scale surveys involving relatively large samples usually consist predominantly of closed-ended questions, while open-ended questions are used only in exceptional cases where the researcher wants to explore a new or relatively unknown phenomenon or field. In most large-scale surveys, the number of open-ended questions is restricted to no more than two or three per questionnaire.

10.8.2 Compiling closed-ended questions

Although most questionnaires consist predominantly of closed-ended questions, compiling closed-ended questions requires knowledge, skill



and expertise. Closed-ended questions should meet the following requirements (Babbie 2001; Mytton 1999; Neuman 2006):

- *The response options should be exhaustive, that is, the options should cover all possibilities.* Although it is possible to add an 'Other' category to make provision for aspects not covered in the existing options, the coding and analysis of responses to an 'Other' category are time-consuming and difficult – similar to open-ended questions.
- *The response options should be mutually exclusive.* That means options should not overlap and the same meaning should not be reflected in more than one option. For example, when using – as in the following example – categories to determine age, a particular person's age should not fall in more than one category:

WRONG	MORE CORRECT	
Age: 16 to 25 years	16 to 25 years	1
25 to 35 years	26 to 35 years	2
35 to 45 years	36 to 45 years	3
45 to 55 years	46 to 55 years	4
55 to 65 years	56 to 65 years	5
65 years +	66 years and older	6

- *Items/questions should not be leading and should not pressurise respondents in a particular direction.* Mytton (1999:39) gives the following example of a statement that was used in India in a survey on the newly introduced cable television channel (CTV):

WRONG

Some of the CTV feature films contain sex/violence, which affects the minds of children. What is your opinion about this aspect of CTV?

The statement already indicates what respondents should think about the issue. A statement should rather be formulated in such a way that it gives respondents the freedom to agree or disagree, for example:

MORE CORRECT

Films containing sex could affect the minds of children negatively. To what extent do you agree or disagree with this statement?



- *Items/questions should be as simple, straightforward and short as possible.* Long and complex statements should be avoided. The following excessively long and complex statement was also used in the abovementioned survey in India (Doordarshan is the state television channel – Mytton 1999:39):

WRONG

It is generally believed that the indiscreet showing of foreign films on CTV without removing objectionable scenes/dialogues (unlike Doordarshan, which shows only classical/award-winning foreign films and even removes objectionable scenes) is a direct invasion of our culture. What is your opinion about this?

Apart from the fact that the statement is also leading, it is almost self-evident that respondents would be lost halfway through the statement and that they would have difficulty in grasping the meaning. A simpler and more straightforward wording would be the following:

MORE CORRECT

Films containing scenes involving sexual behaviour should be edited before screening on television. To what extent do you agree or disagree?

- *The wording should be such that confusion, vagueness or ambiguity is avoided.* Language that could mean different things to different people should not be used. Consider the following question:

WRONG

How much time do you spend watching television?

<i>A great deal</i>	1
<i>A moderate amount</i>	2
<i>Not a lot</i>	3
<i>No time at all</i>	4

Only the last response option has a definite meaning. With the other options only subjective opinions are measured on the amount of time watching television. For a businessman, an hour might be ‘a great deal’, while for a teenager it might be ‘not a lot’.

- *Questions and statements should be unidimensional.* Double-barrelled



items – usually characterised by the use of ‘or’ and ‘and’ – such as in the following example should be avoided:

WRONG

Do you eat breakfast and read your newspaper in the mornings when listening to the radio?

In this case it will be unclear whether a ‘yes’ response applies to eating breakfast, listening to the radio or to both. The same applies to a ‘no’ response. It will be better to use two separate unidimensional questions, namely:

MORE CORRECT

Do you eat breakfast when listening to the radio in the morning?

Do you read your newspaper when listening to the radio in the morning?

- *Instructions should be clear.* It should, for example, be indicated clearly whether respondents should choose only one response option or whether they are allowed to choose more than one.
- *The question format should be appropriate to the kind of information that is needed.* There is no single format that can fulfil all the researcher’s information needs. The skilled survey researcher will vary the format of questions for different information needs. Some of the frequently used formats are discussed in the following sections.

10.8.3 Quantity questions

quantity
questions

The response to a quantity question involves a number – exact or an approximation – in response to a question to give information in numerical form. Information on a respondent’s age, the number of people living in a household, the number of television or radio sets, can be recorded in the form of numbers, for example:

Age: years

10.8.4 Multichoice type and checklist questions

multichoice-
type questions
checklist
questions

In multichoice-type questions, respondents need to make a choice between response options that are mutually exclusive (Mytton 1999). Sometimes only one response option can be chosen; at other times more than one option can be chosen. This type of question is very versatile. It



is most often used to obtain demographic information, but is also used for a range of other purposes, as illustrated by the following examples:

Gender:

Male 1

Female 2

Do you have access to television?

Yes 1

No 2

How often do you watch Generations?

Almost every day 1

A few times per week 2

A few times per month 3

Less than once or twice per month 4

Almost never 5

Checklist questions are very similar to multichoice-type questions. In this type of question format, respondents are often allowed to choose more than one response option, but should be instructed that they can do so, as in the following example:

Which of the following television soap operas have you watched in the past two weeks? You can mark more than one.

Generations 1

Isidingo 2

Sewende Laan 3

Binnelanders 4

Villa Rosa 5

10.8.5 Contingency questions

Contingency questions – also called screening questions or skip questions – are used in order to avoid asking questions that are irrelevant for a

contingency
questions



particular respondent (Neuman 2006). A contingency question is a two- (or more) part question in which the first question determines which question(s) the respondent needs to answer next. In other words, on the basis of the respondent's response to the first question, the respondent can be instructed to skip one or more questions, for example:

1. *Does your household currently subscribe to satellite television?*

Yes 1

No 2

If you answered 'Yes' to question 1, please skip question 2 and move to question 3.

If you answered 'No', please answer question 2.

2. *What are the most important reasons why your household does not subscribe to satellite television?*

10.8.6 Rank-order questions

rank-order
questions

Rank-order questions are one way of measuring opinions and attitudes (Mytton 1999). In this type of question, respondents are asked to put possible answers in a rank order of importance or desirability. Some detail might be provided to help respondents to make informed choices. Respondents might be asked to order their preferences of radio or television programmes, stations or channels, as illustrated in the following examples:

Here is a list of various types of television programmes. Please rank them in order of your preference. Put a 1 next to the type of programme that you like the best; a 2 next to the type of programme that you like the second best, and so on.

_____ *News programmes*

_____ *Sports programmes*

_____ *Soap operas*

_____ *Documentaries*

_____ *Talk shows*

_____ *Comedies*



The television channels of the SABC regularly broadcast the following sports:

rugby, tennis, soccer, boxing, athletics, hockey and netball. Please indicate which of these broadcasts you like best (first choice), second best (second choice) and third best (third choice):

First choice:

Second choice:

Third choice:

Rank-order questions can also be used to establish the popularity of presenters. This type of question can furthermore be used for more serious purposes (Mytton 1999). Suppose you want to know how young mothers in rural areas would like to get information about child health. You might ask a question like the following:

The following are possible ways in which information about child health can be made available to mothers in your area. Please rank them in order of your own preference. Give your first choice the number 1, the next choice the number 2, and so on, up to the number 5 for the information source which is the least important to you.

Personal information sessions with a clinic sister

Radio programmes

Television programmes

Information pamphlets distributed at clinics

Posters at clinics and hospitals

Other – please state _____

10.8.7 Intensity measures

Opinions, attitudes and feelings cannot easily be categorised in a dichotomous way, as reflected in questions with a simple ‘yes’/‘no’ or ‘agree’/‘disagree’ format (Nardi 2003). Although people might have clear preferences, most people feel more or less strongly about most issues. For example, you might feel extremely strongly in favour of greater press freedom and the freedom of the individual to express his

intensity
measures



or her feelings freely. However, although you might also be in favour of the availability of more television channels in South Africa, you might not feel as strongly about the latter as about the former issues. In other words, it is often not enough to have respondents choose between two opposing categories such as 'yes' or 'no' or 'agree' or 'disagree'. They also need to indicate the intensity of their feelings, that is how strongly they 'agree' or 'disagree'. People's attitudes, opinions and feelings are consequently often measured by means of intensity measures such as Likert-type or semantic differential scales.

Likert-type scales

The Likert-type scale is a closed-ended scale appropriate *par excellence* for measuring attitudes or opinions (Rosnow & Rosenthal 1996). It represents a numerical scale in which numbers are associated with different responses. In most cases, the response options reflect varying degrees of agreement or disagreement. Likert-type scales often consist of statements to which respondents should indicate the extent to which they agree or disagree. However, as can be deduced from the following examples, the Likert-type format is extremely versatile and can take a variety of formats. Neuman (2006:296) gives a list of potential response formats that can be used when compiling Likert-type scales. The following are some examples of Likert-type scales that can be used in media research:

Television programmes often contain scenes that I find offensive.

Strongly agree 1

Agree 2

Neither agree nor disagree 3

Disagree 4

Strongly disagree 5

Indicate to what extent you are interested in documentary crime programmes:

Very interested 1

Interested 2

Neutral 3



<i>Not interested</i>	4
<i>Not interested at all</i>	5
<i>What is your opinion of the programmes offered by SABC3?</i>	
<i>Very good</i>	1
<i>Reasonably good</i>	2
<i>Neither good nor bad</i>	3
<i>Bad</i>	4
<i>Very bad</i>	5

In the above examples, five-point scales have been used. There is, however, no rule against a greater or smaller scale size. However, Mytton (1999) holds that four or five options yield the most easily analysed results. It is generally agreed that a neutral option (for example, 'neither agree nor disagree') should be provided to enable the respondent to indicate that he or she does not agree or disagree with any of the other response options that are offered. However, some researchers prefer to exclude the neutral option in order to get a clear indication of opinion. The implications of forcing a respondent to take a stand with regard to a particular issue should, however, be considered.

Of particular importance is the order of the response options. The options should follow a logical order: for example, from positive to negative, large to small or vice versa, with the neutral option always in the middle. Response options should never be scattered in an illogical order.

A Likert-type scale should also be well-balanced. The following scale was used some years ago by a South African airline to establish opinions on the food served on board:

WRONG

How would you rate the food served on this flight?

<i>Good</i>	1
<i>Very good</i>	2
<i>Excellent</i>	3



The problem with this scale is that respondents are not allowed to indicate that they did not like the food. A more appropriate scale would have the same number of positive and negative options such as in the following example:

MORE CORRECT

How would you rate the food served on this flight?

<i>Very good</i>	<i>1</i>
<i>Good</i>	<i>2</i>
<i>Cannot say</i>	<i>3</i>
<i>Bad</i>	<i>4</i>
<i>Very bad</i>	<i>5</i>

Matrix questions

In order to enhance the reliability of measurements (see section 10.9), a set of items is sometimes compiled to evaluate opinions or attitudes towards a particular subject or issue (Neuman 2006). In matrix questions the scales are listed in a compact form where the response categories for all the questions are the same. The responses on the various scales are usually summated in order to obtain a single measure of attitudes or opinions towards the object or issue at stake.

Indicate to what extent you agree or disagree with the following statements regarding the news programmes of the SABC:

SA A N D SD

The news programmes are politically neutral.

The news programmes give preference to particular political parties.

The news programmes are objective in presenting political events.

The contents of news programmes are controlled by the ruling party.



semantic differential scales

Semantic differential scales

According to Rosnow and Rosenthal (1996), the semantic differential was developed for the measurement of the connotative meaning – as opposed to the denotative meaning – of things in everyday life. The term *denotative* refers to the assigned meaning of an object or subject as reflected in dictionaries, while *connotative* refers to the representational meaning, that is, one’s own subjective associations. The inventors of this question format, Osgood, Suci and Tannenbaum (1957), argue that most things in life (for example, dogs, flowers, individuals, ethnic groups, presenters, programmes) are perceived in terms of three primary dimensions of subjective meaning, namely *evaluation*, *potency* and *activity*. Osgood et al. developed the method of using bipolar cue words to tap all three dimensions of connotative meanings.

In media and marketing research, semantic differentials are often used to evaluate products, programmes, persons, groups, and so forth. The semantic differential can also be employed to make comparisons. Suppose you are interested in comparing the two presenters of an early morning radio programme in terms of their connotative meaning for regular listeners to the programme. Listeners can then be requested to evaluate the two presenters on the same semantic differential scale. To tap the evaluative dimensions associated with the two presenters, the following bipolar anchors can be used:

<i>Bad</i>	1	2	3	4	5	<i>Good</i>
<i>Unpleasant</i>	1	2	3	4	5	<i>Pleasant</i>
<i>Dull</i>	1	2	3	4	5	<i>Sharp</i>
<i>Polite</i>	1	2	3	4	5	<i>Rude</i>

The numbers represent dimensions of a continuous scale and can be explained for the first scale in the following fashion: ‘extremely bad’ (1); ‘quite bad’ (2); ‘neutral’ (3); ‘quite good’ (4) and ‘extremely good’ (5). An example is usually discussed in the instructions for a semantic differential scale in order to help the respondents to understand the significance of the various dimensions of the scales.

Please note that the poles of the scale should represent direct opposites. It is furthermore important to note that no particular order is followed in ordering the positive or negative poles of the scales. In varying the



order, that is, whether the positive or negative pole is given first or last, recency effects can be avoided. Recency effects refer to the effect that occurs when respondents tend to pursue with their last response offered rather than considering each question or item seriously (Neuman 2006). For example, a respondent who marked '2' on the first semantic differential scale, can tend to proceed in a similar way by marking '2' for all the other scales also.

10.8.8 Overall structure of a questionnaire

questionnaire
structure

A questionnaire usually consists of the following sections:

A Letter of introduction

The letter of introduction is an important part of the questionnaire, in which the researcher should do the following:

- introduce himself or herself and give information on the people, institutions or organisations involved in the study;
- give an indication of the reason(s) for or aims of the study;
- motivate the respondents to participate in the study;
- assure the respondents of the confidentiality and anonymity of their responses;
- give contact details of the researcher(s).

B Demographic or other relevant details

This section could follow directly after the letter of introduction or could be placed at the end of the questionnaire. In most large-scale surveys, demographic questions follow directly after the letter of introduction due to their vital importance in the analysis of the data. However, whatever its position in the questionnaire, the section should contain questions on the demographic details relevant to the field of study. Most questionnaires contain questions on gender and age. Other details that might be relevant are race, marital status, highest level of education, personal income, socioeconomic status of household, occupation and/or home language. In intra-organisational studies, other variables such as division or rank might be relevant, while details like occupation and income might be superfluous as information on these might already be reflected in the rank of an employee. In all cases, the researcher should decide which demographic variables are relevant to a particular study, and only those variables should be covered in the questionnaire.



C Questions related to field/topic of investigation

This section contains the questions aimed at investigating the research problem(s) or issue. The order of questions within a section needs to be considered carefully (Mytton 1999:53). Here a funnel structure is mostly used. Funnelling refers the ordering of questions from the general to the more specific. For example, if you ask ‘have you read the *Sowetan* in the past seven days?’, your respondent might be startled. It is better to start with a general question on newspaper reading patterns such as ‘I want to ask you some questions about newspapers. Do you ever read any newspapers? If yes, which newspaper do you read the most?’ From these general questions, you can proceed to more specific questions regarding the reading of particular newspapers.

Another important issue is the length of the questionnaire. The questions included in a questionnaire are determined by the purpose of the study (Mytton 1999:41). The designer of a questionnaire should, however, retain a balance between the number of the questions to be included and the overall length of the questionnaire. If the questions included are too few to explore the research issue(s) sufficiently, the project will fail. The project will, however, also fail if the questionnaire is so long that it wearies out the respondent, the fieldworker, or both. It is therefore not a good idea to ‘play it safe’ and include everything that might be of relevance. The real skill is to reduce the questionnaire to those questions that are absolutely essential to meet the research objectives. As a general principle, Mytton holds that questionnaires that take longer than a maximum of 45 minutes to administer should be avoided.

10.9 QUALITY MEASURES FOR EVALUATING SURVEYS: RELIABILITY AND VALIDITY

Reliability and validity are central issues in research (Neuman 2006). They represent the yardsticks with which the quality of all kinds of research – quantitative, qualitative or participatory – are evaluated. Discussions on reliability and validity in most textbooks are, however, often more applicable to measuring scales (for example, a number of items measuring the same construct) than to survey studies in general. For instance, it is not practically possible to repeat a questionnaire survey on the same sample to determine the test–retest reliability of a survey study. The following sections contain some notes on reliability and validity pertaining more specifically to questionnaire surveys.

reliability and
validity



10.9.1 Reliability

A variety of definitions of reliability can be found in textbooks on research methodology. Neuman (2006) defines reliability simply as dependability or consistency. It suggests that the same measurement or response will be obtained under identical or similar conditions. For example, you get on to your bathroom scale and read your weight. If you get off and get on again a number of times, it should give approximately the same weight each time – assuming, of course, that you have not eaten or drunk anything or changed your clothing. If the measurements are consistent, the bathroom scale can be regarded as a reliable measuring instrument. If not, it is unreliable. All researchers want their measuring instruments (for example, the questions included in a questionnaire), to be reliable and valid. However, it needs to be kept in mind that perfect reliability – as well as perfect validity – is not possible.

Neuman (2006) distinguishes three forms of reliability that are relevant for survey research, namely:

- Stability reliability: does a particular question or item give the same results over time?
- Representative reliability: does a particular question or item give the same results when applied to different groups/samples?
- Equivalence reliability: does a particular question or item give the same results as other indicators measuring the same construct or variable?

Mytton (1999) holds the reliability of a questionnaire survey to be the extent to which a questionnaire yields similar results on different occasions. A question that yields one response from a respondent on one occasion, but a different response from the same respondent on another occasion, might be unreliable. (It needs, however, to be kept in mind that a person's attitudes, for example, could change.) The reliability of a questionnaire survey depends mainly on the rigour of the research design; that is, the sampling procedures, the way that the questionnaires are applied and the wording of questions. Neuman (2006) suggests the following ways in which the reliability of surveys can be enhanced:

- Clearly conceptualise all constructs – each question should address one and only one concept, which implies that ambiguous, clear theoretical definitions should be developed for all issues to be measured.
- Use precise levels of measurement – this principle also implies that



all ambiguity and vagueness in the wording of questions and/or response options should be avoided.

- Use multiple indicators of a variable – for example, a number of items measuring the same construct, such as a scale containing a number of items to measure attitudes towards a country’s public broadcaster.
- Use pre-tests and pilot studies to identify defects such as problems with the wording of questions or items.
- Use a probability sampling design to enhance the representative reliability of a survey.
- Ensure that interviewers are thoroughly trained.

There are various ways, some very complex, to test reliability (Mytton 1999). One can use a number of items to measure a particular concept. One can also test a question on the same respondent on different occasions. The problem is, however, that the person can remember what his or her previous answer was. If he or she gives the same response, it could be the result of a good memory rather than the reliability of the question at stake. It is rather through experience that survey researchers learn which questions are likely to yield reliable results. Pilot testing is, however, one of the most important ways in which the reliability of survey questions can be improved.

10.9.2 Validity

Consistency of results, as reflected in reliability, is not enough. A questionnaire can be highly reliable, but still be invalid. Mytton (1999) defines the validity of a survey as that quality of a questionnaire that ensures that what is measured reflects reality. Neuman (2006), on the other hand, relates validity to a specific purpose or definition. A question, scale or questionnaire might be valid for a particular purpose but less valid or invalid for other purposes. In this sense validity also refers to our theoretical and operational definitions of concepts. For example, if a researcher is interested in the public’s opinion on violence on television, the theoretical definition of violence will determine how the concept ‘violence’ is operationalised in the questionnaire. Neuman holds that it is more difficult to achieve validity than reliability.

Four forms of validity as distinguished by Neuman (2006) are particularly relevant to survey research:

- Construct validity: does a question, item or scale measure the construct or issue that it is supposed to measure?



- Face validity: does the question appear to measure the (theoretical or operational) construct or issue that it is supposed to measure?
- Expert validity: do experts within the field agree that the question appears to measure the (theoretical or operational) content or issue that it is supposed to measure?
- Content validity: do I measure the 'full content' of what I should measure: for example, do the response options of a question consider all possible responses to the question? Does a questionnaire measure all areas relevant to the research issue?
- External validity: can I generalise the results to the population?

The validity of survey research can be improved in the following ways (Neuman 2006):

- Do your homework in order to ensure that you cover the issues that are relevant to providing the answers to a particular research problem; study the literature.
- Do explorative research.
- Use a variety of research methods (triangulation), such as focus groups, to assist you with the development of a questionnaire.
- Make use of the judgement of experts, colleagues, peers and/or representatives of the population that you intend to study as you develop your questionnaire.
- Conduct pre-testing and pilot studies.
- Make sure that you take into consideration the particular (cultural) context in which your study will be conducted.
- Use probability sampling designs to enhance the external validity of the survey.

According to Mytton (1999), audience researchers are faced with various validity problems. In measuring radio audiences, for example, different results can be obtained by means of questionnaire surveys and diaries. The question then arises: which is valid, that is, which measurements best reflect reality? It is doubtful that audience researchers will ever be able to answer all the questions related to the validity of various measures obtained by different instruments. It is furthermore highly likely that all measurements are distorted in some or other way. It may, however, not matter too much given that we consistently use the same method of measurement for investigating a particular issue or problem. The distortions will then at least remain consistent over time. That brings us back to Neuman's (2006) definition of validity in terms of



the purpose of a study. The question is, in the end, whether a particular survey is able to tell us what we need to know.

10.10 SOURCES OF ERROR OR BIAS IN QUESTIONNAIRE SURVEYS

From everyday life we know that, despite careful planning, few things ever operate perfectly (Mytton 1999). This is also true of survey research. All surveys are susceptible to a multitude of sources of error that can lead to distortions or bias in the results. Here we need to repeat what is covered in Chapter 12, namely that the concept ‘error’ as used in research has a different meaning from the understanding of mistakes in everyday life (Webster et al. 2006). Error as used in social science research refers to the extent to which measurements obtained by means of survey research fail to reflect reality. The concept of ‘bias’ is often used in conjunction with error. Bias refers to a misrepresentation in what is being measured in a particular direction (Babbie 2001:G1). In the following section we discuss some of the sources of error or bias associated with questionnaire surveys.

error and
bias

10.10.1 Sampling error

Sampling error is the degree of error associated with a particular sampling design. It is usually used in connection with the notion of probability sampling designs (Babbie 2001; Nardi 2003). Discussions of sampling error usually refer to so-called ‘population parameters’ or the exact value of a particular measurement for a particular population: for example, the exact number of the adult South African population that watches a particular television programme. If we could draw a perfect probability sample, we should theoretically be able to calculate the population parameter from the responses to the questionnaire. However, the notion of a perfect probability sample is in practice a mere fiction (Tredoux 2002). In most practical research situations, even the most carefully drawn probability samples are distorted and imperfect reflections of the populations they are supposed to represent. There will consequently almost always be a difference between the true population parameters and the estimations of these parameters obtained from a sample. This difference is called sampling error.

There are, however, ways in which researchers attempt to reduce sampling error and/or to correct for it. Sampling error can be reduced by applying the principles of probability sampling in drawing and



executing a sampling design (Nardi 2003). It is furthermore assumed that sampling error is smaller for larger than for smaller samples. Non-response should also be reduced (see section 10.10.2). Researchers sometimes also correct for sampling error by reporting confidence intervals instead of or in addition to the exact values obtained from the sample (see Babbie 2001:193).

10.10.2 Non-response error

The failure to get a valid response on each question in a questionnaire from every selected respondent, that is, non-response error, weakens a questionnaire survey (Neuman 2006). Several sources of nonresponse error can be identified. Sometimes respondents may refuse to answer questions on sensitive issues such as, for example, their monthly income or questions on visiting pornographic websites. Sometimes respondents can simply neglect to complete a questionnaire fully. The consequence can be misleading findings. Other major sources of non-response are associated with the practical implementation of sampling plans. Sometimes a sampled respondent cannot be found; a respondent is not at home or cannot be reached after several attempts; a respondent can be reached but does not fulfil the requirements (for example, age requirement) of the survey; and/or a respondent can refuse to participate in the survey. In South Africa, non-response has become a serious problem, as it is becoming increasingly difficult for fieldworkers to gain entrance to households in higher socioeconomic areas due to security measures such as gated communities, high walls and electrified gates. The magnitude of non-response error in a survey can be estimated by comparing the realised sample size to the sample size in the initial sampling plan and/or inspecting the response rates to specific questions.

Several measures can be taken to reduce non-response error (see Neuman 2006:295-299). Careful consideration should be given to the formulation of questions and response options to sensitive issues. Researchers should furthermore put measures in place to ensure that respondents complete questionnaires fully. A system for replacement should be devised and implemented when a selected respondent cannot be found, does not fulfil the survey requirements or refuses to participate. In household surveys, for example, a household can be replaced with the household to its immediate right or left if an eligible respondent cannot be found at



the household initially selected. Respondents may also be more willing to participate if a fieldworker represents their cultural group and is able to speak their home language. Refusals can also be reduced by sending a letter or calling a respondent in advance. The initial contact between the respondent and fieldworker is also important. Delivering a questionnaire personally, instead of leaving it on the doorstep or in a postbox, can also enhance participation. The use of incentives, particularly in postal surveys, can furthermore raise participation rates.

10.10.3 Interviewer effects

The interviewer's tone of voice, body language, posture and the relationship he or she is able to establish with a respondent, especially in the initial contact phase, are all factors that can influence the responses to the questions in a questionnaire. An interviewer can, for example, introduce bias in a survey by introducing his or her own expectations on what the responses to particular question(s) should be or attitudes towards particular issues in a questionnaire interview. Mytton (1999) suggests two ways in which interviewer bias can be reduced. Firstly, the wording of questions should be as neutral as possible to avoid giving the fieldworker, and also the respondent, the impression that certain responses are expected. Fieldworkers should furthermore be thoroughly trained to maintain a critical self-awareness of the dangers of influencing respondents and/or a subjective interpretation of responses. Interviewers should furthermore be trained to treat every respondent with politeness, care and respect despite possible cultural, class or caste differences.

10.10.4 Response bias

Some respondents are prone to responding in a particular way (response set), to give socially desirable responses (the responses that they think the researcher wants), to exaggerate the truth or simply provide false information (Nardi 2003). There are several ways in which a researcher can attempt to avoid response bias in a questionnaire survey. We have already referred to recency effects and the need to vary the order of positive and negative cue words when compiling semantic differential scales (see section 10.8.7). The tendency to lie or to give socially desirable responses can be detected by including so-called 'trap' questions. For example, when asking a question on the newspapers that respondents



read, the name of a fictitious newspaper – that is, a newspaper that does not exist – can be included in the list. The same information can also be obtained in different ways. For example, information on the newspapers that respondents read can be obtained by a checklist question as well as by a question with a ‘yes/no’ format. When definite signs of response bias are detected in a number of questionnaires, the researcher can opt to exclude these questionnaires from the overall analysis or to analyse them separately.

10.11 CASE STUDY

The most well-known media survey in South Africa is the All Media and Products Study (AMPS® survey), conducted by the South African Advertising Research Foundation (SAARF). Whereas the nature of this survey is discussed in more detail in section 12.9.1 of Chapter 12 we discuss the SAARF AMPS® here as an example of a large-scale survey that employs complex multi-stage cluster sampling to draw a sample of the heterogeneous and geographically dispersed South African population.

For the 2007A SAARF AMPS®, a total countrywide sample of 24,812 respondents of 16 years or older were interviewed (SAARF sa). All metropolitan and urban areas with a population of 100,000 or more were included in the sample. Within each province, metropolitan areas were listed alphabetically in five strata (or categories) reflecting population size – 40,000 to 99,999; 8000 to 39,999; 4000 to 7999; 500 to 7999 and less than 500 – with their cumulative populations also listed. From each stratum a sample of communities (or clusters) was drawn using systematic sampling, with a standard random starting point and fixed interval technique.

The sample required for rural areas was proportionally allocated to the various provinces and, within each province, to magisterial districts proportional to population size as indicated in the 2006 population estimates (also an example of stratification).

The Nielsen GeoFrame served as the main sampling frame for the selection of households. The Nielsen GeoFrame lists the residential addresses in most (but not all) metropolitan areas and contains 5,983,703 addresses that are arranged alphabetically by suburb and, within each suburb, by streetname. For communities listed in the Nielsen Geoframe,



a method of systematic sampling was again followed, by starting from a random start in the sampling frame of addresses in each of the clusters drawn and drawing addresses on the basis of a fixed interval. To simplify fieldwork, one other address was then drawn in the immediate vicinity of each address drawn, to form clusters of two.

For areas not covered in the Nielsen GeoFrame, GPS coordinates were employed to draw households. Within a chosen (drawn) community or magisterial district, a grid was overlaid electronically and coordinates selected on a random basis. These coordinates were provided to the fieldworkers who used GPS devices to guide them to the specific point indicated by the randomly selected coordinates. Clusters of two were again formed by instructing fieldworkers to move three dwellings to the right to select the second respondent to form clusters of two. The final coordinates were captured and used to control for the accuracy of the sample selection.

Each address/household that formed part of the designated sample, was predesignated to provide either a male or a female respondent – in equal proportions. Exceptions were mines, hostels and domestics, where the points were allocated to either males or females. The equal gender proportions are reflected in the final realised sample that consisted of 12,405 male and 12,407 female respondents.

At each selected address, within-household sampling was done by means of a random grid where adults of the designated gender in each household were listed according to their age order. Fieldworkers were instructed to interview the selected individual irrespective of language.

The sampling plan also made provision for replacement or substitution in the case of non-response. Substitution was allowed after a number of unsuccessful calls at a particular address. Alternatively, an individual at the address to right or the left of the address originally selected had to be interviewed. At the substituted address, an individual of 16 years or older had also to be selected by means of the random grid of the same gender as the originally designated respondent.

This sampling plan of the AMPS® survey represents an application of some of the best practices employed in the organisation of large-scale surveys in the rest of the world. However, it also illustrates the unique challenges presented by the complexity of the South African



Media Studies: Volume 3

population and how the sampling plan needed to be adapted to cover both metropolitan and far-off rural areas.

Questionnaires are completed by means of face-to-face interviews in which the responses of respondents are recorded by means of CAPI (see sections 10.7.5 and 10.7.7). Visual prompts in the form of shuffle cards that display the mastheads and logos of newspapers and magazines are furthermore used in the investigation of readership patterns.

SUMMARY

At this stage it should be clear why survey research is not for the faint-hearted. Every step of questionnaire surveys presents unique challenges to the researcher. The questionnaire survey is nevertheless a highly versatile tool in the hands of the skilled social science researcher. Most of the skills associated with questionnaire surveys can also be developed by experience and practice. However, questionnaire surveys do not present the final answer for all the research problems and topics in media studies. Questionnaire surveys, for example, cannot offer an in-depth understanding of the unique experiences of individuals and communities of the media. In order to obtain an in-depth and multi-faceted understanding of the relationship between people and the media, the results of questionnaire surveys should be supplemented with the results of other research methods, such as in-depth interviews, ethnography as well as quantitative and qualitative content analysis.

LEARNING ACTIVITIES

- 1 Formulate five research questions related to your field of interest in media studies that can be investigated by means of survey research.
- 2 Choose any one of the research questions that you formulated in activity 1. Compile a questionnaire to investigate the research question.
- 3 Conduct a pilot study to investigate the research question that you chose in activity 2. Follow the following steps:
 - Define the population.
 - Select an availability sample of five respondents to participate in the pilot survey.



- Conduct a self-administered survey among the selected respondents.
- Conduct interviews with the five respondents. Try to determine whether they experienced any problems with the questionnaire.
- Adapt your questionnaire in response to the feedback that you received from respondents in the pilot study.
- Analyse the results of the pilot study by making use of simple frequency tables and graphs.
- Critically evaluate your study.

FURTHER READING

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