Written surveys and questionnaires

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Summary

This chapter discusses how to construct and administer one of the most important tools of survey research: the questionnaire. It outlines the preparatory stage in questionnaire design and gives examples of sociolinguistic studies for which questionnaires have been used. I also describe how to write good questions, and provide a brief overview of some main question types. The standard structure of questionnaires (introduction, mid-section, conclusion) and the elements that are normally found within them are described and exemplified. Finally, the chapter addresses the issue of how to test and, eventually, administer a questionnaire successfully.

Introduction

We have all experienced survey research as a participant, perhaps by enduring an interview by a market researcher on the telephone, or by returning a customer-service questionnaire. A survey allows researchers to organize data collection when the number of potential respondents is very high or when they cannot easily be accessed. In order to conduct a survey, researchers should consider three important issues: (1) the general design of the survey, (2) the sampling methods, and (3) the data collection instrument. This chapter focuses on the third point; specifically, I outline how to construct and administer questionnaires, especially self-administered written questionnaires.

Questionnaires allow researchers to collect a relatively large amount of data quickly. If the questionnaire construction is well-thought through, processing the data is also quick and efficient. Questionnaires are also relatively cost-effective and can be used in a variety of contexts. Writing a good questionnaire is not easy; however, a large amount of helpful knowledge has been acquired in various branches of the social sciences that can help to make the process of questionnaire writing and administration a much more effective and successful endeavor. The following section describes this process briefly from a sociolinguistic point of view. This chapter outlines:

(a) how to develop a questionnaire
(b) how to write good questions
(c) how to structure a questionnaire
(d) how to test a questionnaire, and
(e) how to administer the questionnaire.

Developing a questionnaire

Researchers usually have only one shot at collecting their data, so it is extremely important to make sure the questionnaire is based on thorough preparation and is as clear and effective as possible. First, a problem statement and a research question, motivated by previous research, should be developed. It is important to decide *exactly* what the study is supposed to find out. Second, a preliminary set of theoretically-driven ideas should be generated on topics that may be helpful in answering the research question.

In order to gain insight into the relevant issues, the questionnaire design phase is sometimes preceded by focus group interviews or a short questionnaire with open questions. These are good methods for finding out what questions work and what potential answers could be used, in the words of the target population, in closed questions in the final questionnaire. It is always worth checking what other tools have been used in the literature to answer similar questions. Such questionnaires, or scales from these, may very well be appropriate candidates for inclusion. Text box 1 lists examples of questionnaire-based research in the area of sociolinguistics.

Written surveys and questionnaires can be used for a variety of sociolinguistic problems. Dillman (1978, 80) differentiates between five types of question content: *behavior*, *beliefs*, *knowledge*, *attitudes* and *attributes*. These may relate to sociolinguistics in a variety of ways. *Behavior* relates to what respondents are doing or have done in the past (actions, habits, lifestyles). It may relate to what language or variety a person uses in a specific context, and with whom. *Beliefs* access what we think is true and may concern language beliefs and ideologies; for example, folklinguistic beliefs concerning what the standard language is, how it developed and when it should be used. *Knowledge* can relate to which languages we know and how well we know them. *Attitudes* concern how we evaluate languages, varieties and linguistic features. Finally, *attributes* refer to information about the respondent's characteristics. It is very important to formulate questions that tap into the area in which we are interested; for example, language behavior. Similarly, it is crucial to limit interpretations of answers to questions concerning, in this case, language behavior to this concept only. All too often researchers extrapolate from behavior to beliefs and attitudes.

Once a problem statement has been formulated, ideas about how to approach the research issue have been collected and the type of question content has been selected, these should be translated into task-appropriate questions. In a first round, raw questions should be formulated, and these should later be refined and turned into questionnaire items.

Textbox 1
Examples of questionnaire-based research in the area of sociolinguistics

Language surveys investigate what languages are spoken in a specific area, the sociolinguistic profile of ethnic minorities (e.g. Extra and Yagmur's (2004) Multilingual Cities Project) and in what domain certain varieties are spoken (e.g. Choi's (2005) study on bilingualism in Paraguay).

Regional variation surveys investigate dialect variation. Traditional dialect surveys are often based on a questionnaire administered by a fieldworker. For example, the Linguistic Atlas of England (Orton, Sanderson and Widdowson 1978) is based on data from a long questionnaire that collected dialect vocabulary, pronunciation, morphology, syntax, etc. In other studies, questionnaires were sent by post; e.g., Chambers (1994) developed a postal questionnaire for a dialectal survey of the Golden Horseshoe area of Canada. Even phonological variables are included in some questionnaires. Such items demand a high degree of introspection from respondents, which not all may have. Other methods are better suited for the elicitation of phonological variables. For example, Llamas (2007) has developed a set of questionnaires, which she used in combination with an interview to collect data on Teeside English.

Surveys of language use explore the use of particular words and phrases in research that is not of a dialectological nature; e.g., the use of loan words, swear words, certain color terms or sexist/non-sexist language use. For example, Fuller (2005) developed a questionnaire on the uses and meanings of the word *Ms*. Such surveys provide us with some important data, but these data may be somewhat different from actual usage (e.g. see Beebe and Clark Cummins (1996) on comparing discourse tasks and natural data).

Language attitude and perception studies explore attitudes towards languages, dialects, accents, new vocabulary or pronunciations. They cover a large breadth of topics ranging

from work on ethnolinguistic vitality (Bourhis, Giles and Rosenthal 1981; Allard and Landry 1986), to questionnaires used in matched and verbal guise tests (e.g. Lambert 1967; Ladegaard 1998; Garrett 2010; Clark and Schleef 2010) and work exploring the frequency (Labov et al. 2011) or social meaning of specific linguistic features (Campbell-Kibler 2007).

Acceptability judgments probe whether a set of sentences or constructions are deemed grammatical. Judgments are normally reported in terms of categories such as *acceptable, marginally acceptable, unacceptable, good, terrible*, etc. Bard, Robertson and Sorace (1996) outline the method of magnitude estimation, which also allows graded acceptability to be measured; e.g., that a sentence is 5 times more acceptable than another sentence.

Writing questions/items

Questions in a questionnaire usually do not take the form of actual questions, which is why the term *item* is often used. The two terms are used synonymously here. Most questionnaire items consist of (1) instructions, (2) a question or statement, and (3) possible answers. Questions should be separated very clearly from the instructions using different typefaces or fonts. Response options should cover a range of responses for a variety of respondents. Care should be taken to ensure that question options are not unbalanced in one direction or another. If there is a neutral position, there should be the same number of response options on either side. There are two main types of questionnaire questions: closed questions and open questions.

Closed questions

Closed questions are those that provide a closed range of possible answers. These answers have been selected by the researcher, and respondents are asked to choose one or more of these answers or organize them in a multitude of other ways. Since possible responses are limited, closed questions can be analyzed easily once all data have been collected. They are suited particularly to collecting relatively simple information. There are different types of closed questions; the most suitable for sociolinguists are introduced below (see De Vaus (2005) for illustrative examples of a host of other question types).

Checklists give a selection of possible answers, and respondents can select as many as they wish that apply to a particular statement or question, for example:

> The following is a list of cities in England. In which of these do you think some locals speak a widely recognizable local dialect? Please circle.

London	Leicester	Liverpool	Leeds	Sheffield	Nottingham
Manchester	Birmingham	Northampton	Carlisle	Norwich	Plymouth

Rankings are an extension of the checklist. They ask respondents to place the options in terms of preference, frequency or some other variable. For example, respondents could be asked to order the options from the example above in terms of most widely recognizable to least recognizable. This can be a very demanding task if more than five or six rank-points are requested. Statistical processing is also difficult, as the difference between ranks may vary. Alternatively, answers could be placed on a line ranging from least to most recognizable. Asking respondents to place answers onto such a continuum allows them to make a statement about the relative distance of factors. After respondents have completed the questionnaire, numbers can be assigned to their responses on the continuum by measuring where they left a response on a, let's say 10 cm long, line. In fact, this kind of representation also works for most rating and semantic differential items (see below).

Rating scales allow respondents to express their degree of agreement with a statement, such as in the scale below:

Some people believe that one should never use more than one language in one sentence. To what extent do you agree with this statement?

Not at all					Very
1	2	3	4	5	6

Responses on rating scales are often expressed as a numerical value. Likert scales are a particular type of rating scale designed to measure agreement or disagreement with a statement (i.e. attitudes and opinions). Responses are normally expressed via a word or phrase rather than a number; for example, strongly agree, agree, neither agree nor disagree, disagree, strongly disagree. Scales can represent various other attributes, such as certainty (very certain - not at all certain), frequency (several times a day – never) and intensity (very much – not at all). Likert scales with happy, neutral and sad faces are often used with children. Statements on rating scales should be characteristic rather than neutral. Neutral statements (e.g. *I think swearing is alright*) do not work well on these scales.

There is wide disagreement as to whether the steps on these scales should be an even or an odd number. An odd number gives respondents a middle choice, which some may use to avoid making a selection. In my own research, I *tend to* use even numbers; however, there is evidence that the relative proportions of those expressing opinions are not affected much and do not change results significantly (Dörnyei 2003, 38).

Semantic differential questions are used frequently in research on language attitudes (Garrett 2010). They are particularly suited to quantifying subjective experiences, such as feelings and emotions. The target variable – for example, whether or not a person seems reliable on the basis of a voice sample – is represented as a pair of bipolar adjectives (sometimes more than one pair relating to the same concept are included: see textbox 2). Informants are asked to select a position on the scale that best describes their feelings. For example, in matched guise tests, respondents hear the same person speaking in two different language guises. They are then asked to rate each voice on several scales, for example:

Listen to the following voice and put a cross on the line where you would put this person on this scale.

Reliable	□ □ □ □ □ □ □ □ □ □	Unreliable
Educated	□ □ □ □ □ □ □ □ □ □	Uneducated
Unfriendly	□ □ □ □ □ □ □ □ □ □	Friendly

Should several bipolar adjectives refer to positive versus negative concepts, their poles should be varied within the task so as to keep respondents focused on the task and avoid superficial responses.

Textbox 2
Multi-item scales

Question wording has been shown to influence an answer or different levels of agreement. Multi-item scaling is a method used to reduce the weakness of such idiosyncratic interpretation for some data types. At least four differently-worded items are created that all focus on the same target (e.g., language ability, attitude towards a particular language policy), but are presented in different parts of the questionnaire. Once all the data have been collected and checked that these items really do tap into the same trait, the mean is calculated for the relevant items. It is assumed that idiosyncratic interpretations of a particular item are averaged-out during this process. See Dörnyei (2003) for more detail.

True-false questions are suitable when researchers are interested only in yes-no decisions. Some respondents, such as children, may not be able to give any more complex answers, so, for these, this is a very appropriate question type. The key sentence has to be

short and should contain only one main idea, which must not be subject to debate. If there is room for debate, a "don't know/not sure" option should be given. The two examples below demonstrate this well:

Which of the following statements do you agree with? Please circle the correct answer.

I think women talk more than men	True	False	Undecided
I have more male than female friends	True	False	

Multiple-choice questions consist of a question or statement and a selection of possible answers. As much information as possible should be included in the stem item so that this does not have to be repeated in the options. Because of the split into stem and options across a sentence, multiple-choice questions are particularly liable to misunderstanding, so questions must be phrased clearly (see text box 3).

Based on the recording you've just heard, this person gives the impression of being (check all that apply):

☐ Reliable
☐ Educated
☐ Friendly
☐ Other (please specify): _____

It is, in some cases, possible that none of the options listed may apply. Respondents may simply leave all boxes blank in this case; however, to find out whether they were left blank because options didn't apply or because the respondent just didn't feel like answering this question, it is advisable to give a *Don't know* or *Other* option.

To make the questionnaire more efficient, it may be worth including questions that direct respondents to the next question applicable to them, based on a previous response. These are called contingency questions. For example, if a questionnaire includes a section on code-switching and the answer to a previous question was that a particular respondent does not code-switch, there is no point in asking this respondent to read through a section on code-switching behavior that asks for more detail. A note at the initial code-switching question simply directs respondents to the relevant section: "if you code-switch, please continue. If you never code-switch, please go to section X."

Finally, many questions about biographical or personal information are, essentially, closed questions; for example, marital status, number of languages spoken, age. Answers can easily be anticipated. Narrow age categories should be offered, unless it is felt that more flexibility is needed for data analysis and asking for the exact age is appropriate. Much thought should be put into how to elicit and create indicators for social variables – such as social class or social networks – in the most concise way possible.

Open-ended questions
In the open-ended question format, respondents do not select from pre-formulated answers but provide answers in the space provided. This may result in a more precise and personal response than those given to questions of the closed type. It may also result in no answer at all and difficulties when analyzing data as a variety of very different answers have to be categorized in some way. This question type assumes that all respondents have the ability to express themselves in writing. It also takes up a lot of time that could be dedicated to other topics. Open-ended questions should, thus, be used sparingly. They tend to be more successful if their scope is limited by giving respondents a certain degree of guidance. Open-ended questions should be placed towards the end rather than the beginning of the questionnaire, as they may take up a lot of time and discourage people from completing the questionnaire. It is also always a good idea to leave some space at the end of the questionnaire asking "Do you have any other comments?"

There are different types of open-ended questions.

- Specific open-ended questions ask about a precise piece of information
- Questions of clarification often follow specific closed questions when a particular answer was chosen; for example, *if you believe English should be the only language medium in school, could you explain why you believe this to be a good policy?*
- Sentence completion items ask respondents to complete a sentence that should point to a well-defined issue; for example, *one thing I like about bilingual education is…*
- Short-answer questions ask for one concept or one idea; for example, *please make two suggestions how bilingual education could be improved at your school?*

Textbox 3
Writing good items
- Items should be short, simple and natural-sounding.   - Avoid acronyms, abbreviations, technical terms and colloquialisms.   - Avoid double-barreled questions. They ask about two different topics at the same time, while expecting only one answer; e.g., *do you think that bilingual education should be promoted by the government, or do you feel that only English should be used in classrooms?* Split such questions into two.   - Avoid items containing negatives as they can be confusing; e.g., *do you not agree that young people are under less pressure not to use non-standard forms of English?*   - Avoid ambiguous and unclear terms as they may be interpreted differently by different individuals; e.g., non-specific adjectives like *many*, *sometimes*, *often*, *good*, *easy*, etc.   - Avoid potentially loaded words and phrases; e.g., *modern*, *free*, *don't you believe that*, etc.   - Don't use biased or leading questions. These require respondents to accept an underlying assumption included in the question before it can be answered; e.g., *given that the government have given their best in supporting literacy, what do you think should be done to reduce the increase in illiteracy among the general population?*   - Include only questions where you can safely assume that respondents have sufficient background knowledge to provide an answer.   - Ask sensitive questions only if absolutely necessary, and renew the promise of confidentiality if you do. Such questions may include marital status and age.   - Mitigate questions about behavior that respondents may feel could meet with disapproval; for example, swearing or the use of non-standard language. Dörnyei (2003, 58) suggests several strategies; e.g., suggesting the behavior is quite widespread, assuming the behavior occurs and asking about details, using research authority (e.g., *many studies have shown that…)*, casualizing the behavior, or including reasons to explain the behavior.   - The frame of reference of a question should be made clear. Simply asking "How often do you use French?" is insufficient. An exact context and time frame should be established in the question and a range of appropriate answers provided.   - Avoid all-inclusive or all-exclusive words (e.g., *all, always, every, never, nobody, nothing*) in your questions, as such words do not allow exceptions and result in lack of variability in the answers. They may be appropriate in answers as part of a variety of options organized on a continuum.

Structuring the questionnaire
Once they have been written, the questions and other important information have to be organized in a structured way. This section describes and exemplifies the standard structure of a questionnaire – introduction, mid-section, conclusion – and the elements that are normally found within them.

The introduction

This section of the questionnaire introduces the research to the respondents. It should minimally include (1) the title of the questionnaire; (2) a *brief* explanation of the purpose of the research and who is responsible for conducting the study; (3) a polite request to fill in the questionnaire fully and honestly; (4) a short outline of what the questionnaire will cover and how long it will take to complete; (5) a promise of anonymity and confidentiality (see Dörnyei 2003, 93ff for anonymity in longitudinal studies where data from the same individual has to be matched); (6) the researcher's name, institution and contact details; and (7) an expression of thanks.

Point (5), the promise of confidentiality, should be displayed quite prominently and could include a phrase such as: *Your responses will be treated with absolute confidentiality and will not be passed on to third parties. You will remain fully anonymous and information identifying you will not be disclosed under any circumstances.* Point (2), the explanation of the purpose of the research, is often presented in a separate document – a participant information sheet. This is particularly appropriate if it is felt that participants should be provided with more detail. A participant information sheet usually begins with a short introduction and is then organized into question and answer to present information in a style that is easy to follow and understand.

The middle section

The middle section of the questionnaire comprises the questions. Various question formats should be utilized to keep the respondents interested. The questionnaire should also demonstrate a clear logical structure. Similar topics should be grouped together. When topics change within the questionnaire, this should be signaled clearly with headings or verbal signposts. In order to further highlight questionnaire structure and help with its flow, instructions should be clearly emphasized. Apart from the general instructions at the beginning of the questionnaire, there should be section introductions when it has been divided into subsections. There should also be question instructions that explain how respondents should answer. They should explain and exemplify what rating scales there are and how they work.

Early questions should be factual and undemanding. They should also be interesting and clearly relevant to the research topic in order to motivate the respondents to complete the questionnaire. Open-ended questions and more demanding questions are usually placed towards the end. Most scholars (e.g. Dyer 2006; Dörnyei 2003) recommend placing demographic questions (e.g. age, sex, marital status) at the very end of the questionnaire. Respondents usually find them off-putting and an intrusion into their private lives. The potentially sensitive nature of these items could be acknowledged by renewing a promise of confidentiality, such as: *Finally, could you tell us a bit about yourself as this would help us make sense of the data you've provided. All information will, of course, be treated with complete confidentiality.*

Achieving the best questionnaire length for your purposes is crucial. The temptation to cover as much ground as possible should be resisted. A questionnaire should not exceed 30 to 50 items. This usually amounts to some 4 pages and shouldn't take more than half an hour to complete (with the slowest writers in mind). Ideally, questionnaires should be below this limit! If the questionnaire turns out to be longer, questions of only peripheral interest should be eliminated. Should a longer questionnaire be necessary, some sort of compensation may be appropriate (e.g. payment, a gift card, a small present). Alternatively, the questionnaire could be split into two.

The concluding section

The concluding section should include (1) an expression of thanks for taking the time to complete the questionnaire; (2) contact details, in case respondents have questions about the research later; and (3) a renewed promise of anonymity and confidentiality. Additionally, one may (4) ask the respondents to check all questions have been answered; (5) describe how questionnaires should be returned (if this is not clear); (6) explain how survey results

can be obtained (e.g. via a website) or promise feedback (in the form of a poster, a meeting or an article); and possibly (7) invite respondents for a follow-up interview. Finally, the draft version of the questionnaire must be proofread. For the questionnaire to be taken seriously, there must be no errors, and it should also be aesthetically appealing (see textbox 4).

Textbox 4
Visual presentation of the questionnaire

A professional-looking, well-structured questionnaire in an attractive design can contribute to a high response rate.
- Questions should not appear too close together. This will make the questionnaire seem less work to fill in and easier to complete.
- On the other hand, too much white space should be avoided. It may intimidate respondents. The number of pages should be kept low, yet sufficient space should be left for open-ended questions.
- Various typefaces and highlighting options should be used. The structure and sequence of the questionnaire should be clearly marked.
- The questionnaire should be printed on good-quality paper.
- It should be printed on only one side of the paper to avoid respondents missing questions. Alternatively, Dörnyei (2003, 19) recommends the use of the booklet format; i.e., a folded double-sized sheet (A3 size).
- Listing alternative answers across the page makes them harder to recognize. If space allows, they should be listed vertically on the page.

Testing the questionnaire

Once a draft version of the questionnaire has been developed, it should be tested thoroughly before it is used on the target participants. Testing the questionnaire serves four purposes: (1) to ensure sufficient information is provided to the participants and instructions are clear; (2) to ensure all questions are understood and answerable in the intended sense; (3) to ensure the questionnaire is a reasonable length, and participants are motivated to complete all questions; and (4) to ensure the elicited data will be valid, complete, reliable and can be analyzed efficiently. There are two basic methods for checking questionnaires: the read-through test and the pilot survey.

Conducting a read-through test simply involves asking several people to read through the finished questionnaire (but not completing it). They should think aloud about the form of the questionnaire, such as the meaning and appropriateness of items, the flow of contingency questions, the structure of the questionnaire, the information given, etc. Weaknesses identified in this test should be eliminated. In a pilot survey, the questionnaire is administered to a small number of individuals from the target population. The collected data should then be checked with a view to points (1) to (4) above, and the questionnaire should be altered accordingly.

Administering the questionnaire

Next, the questionnaire can be distributed. Basic ethical principles should be adhered to at all times. The following sections describe briefly the three main questions my students ask me once they have a finished questionnaire in hand: who should I sample; how should I do this; and, how many people need to fill this in? First, a good sample is one that resembles the target population in its general characteristics, such as ethnicity, speaker sex, age, social class, etc. The sample should be a subset of this target population (see de Vaus (2002) and Dyer (2006) for information on sampling methods).

The size of the sample depends on a variety of factors. The sample should have a normal distribution. One way to achieve this is to include more than 30 people (Hatch and Lazaraton 1991). However, if we know that there are distinct subgroups in our sample that may be expected to behave differently – e.g., educational background, or if, in fact, researchers are particularly interested in this difference – this minimum size should apply to

the smallest subgroup. Since it is unlikely that all respondents will return their questionnaires, many more than this will have to be distributed. If participants are based on self-selection, researchers must also consider how this may influence their analysis, as results may be biased in some unknown manner (Aiken 1997); for example, online surveys are restricted to people with computer and internet access, and, hence, people of a particular socioeconomic status.

There are five main methods of questionnaire distribution. *Assisted completion* involves direct administration by the researcher. *Personal distribution* of the questionnaire is appropriate if access to the targeted population can be arranged. *Telephone surveys* make it necessary to design a questionnaire specifically for this oral medium. *Online, e-mail or computer-based surveys* allow researchers to include voice samples relatively easily. They may also provide interesting options for item design, such as sliders instead of numbered rating scales. Social-networking sites make advertising and distributing such surveys particularly easy. *Mail surveys* also require a questionnaire format adjusted to the specific genre. For a detailed comparison of methods, their advantages, disadvantages and expected response rates, see De Vaus (2002, 126ff).

The major challenge is to ensure many respondents spend sufficient time and effort completing the questionnaire. Dörnyei (2003, 83ff) discusses some tips and tricks in the field relating to how the quality and quantity of responses can be increased.

Processing and evaluating the questionnaire
Once all questionnaires have been collected, each should receive a unique identification number. Next, all answers should be transferred into a computer file (such as Excel). This must be double-checked for accuracy. The initial file *always* contains mistakes!

Data processing may make it necessary to convert all answers into a numerical score, depending on the needs of the statistical program used. Answers to open-ended questions will have to be categorized before they can be converted to quantifiable data. In both cases, a coding guide should be developed to record the meanings of various codes for each questionnaire item.

For data analysis, points on a scale are assigned successive numbers. Negative items are usually assigned a low score, while positive items receive a high score. Scores are summed up and averaged out. Scores should be assigned depending on what they test rather than whether they are *phrased* negatively or positively. Similar care must be taken when interpreting results. A high number does not necessarily mean that something is better; each item must be considered carefully.

Methods have been developed to check whether the data gathered with a questionnaire is valid and accurate (see Dyer (2006) and Dörnyei (2003)). For example, it must be ensured that items on a multi-item scale all correlate with each other as well as with the total scale score. This can be measured using the Cronbach Alpha coefficient (see Dörnyei 2003, 112f). Items that reduce the internal consistency of a scale should be removed. Factor analysis and computing correlation coefficients are two alternative ways to ensure scales are homogeneous.

Data analysis can now start, which may involve reducing or combining variables in the data file, and it should certainly involve appropriate statistical techniques. Limitations of questionnaires should always be kept in mind in order to keep expectations realistic and to avoid overinterpreting the data (see text box 5, based on Dörnyei 2003). It is worth reflecting on these limitations when writing up the report, and when describing and justifying survey structure and tools in the methods section.

Textbox 5
Limitations of questionnaires

Questionnaires are…
- not particularly suited to delve deeply into an issue.

Respondents…

- can be unreliable and misread or misinterpret questions.
- may not be able to read and write well.
- may (consciously or not) answer in a way that reflects what they believe is the desirable answer to present themselves in a good light.
- sometimes have a tendency to agree with a statement, especially when the statement is ambivalent or when they are unsure of the answer.
- tend to overgeneralize; for example, when they like/dislike an aspect of a person or thing, they overestimate/underestimate *all* their characteristics.
- get tired of filling in a questionnaire quickly and may give incorrect answers or leave questions blank.

Since questionnaires produce mostly quantitative data, it is very easy to forget the people behind these numbers. Judicious use of data from open-ended questions can enliven the analysis and situate these numbers in real life. The questionnaire data may also be complemented by other methods of data collection to obtain a full and rounded picture of a linguistic context. Focus groups, ethnographic methods and semi-structured interviews often give excellent insights into what questionnaire respondents may mean. The questionnaire is, thus, a research tool that can stand on its own, but can also be used in combination with other research methods.

Quagmires and troubleshooting
My data don't answer my research question!
Sometimes, students try to answer a research question that cannot be answered with the data that was collected. For example, if it is the task to uncover a link between language attitudes and language use, data about both have to be collected. What is more, data should be collected in such a way that positive/negative attitudes result in a quantifiable score that can be correlated statistically with a similar quantifiable score for language use. Thinking about the research question, and about what data are needed to answer it, is extremely important before any attempt of questionnaire design is undertaken.

I'm not finding anything interesting!
Sometimes, not finding a difference between respondents can actually be quite exciting, particularly when it was assumed that a difference would be found or a difference had been shown elsewhere. It is still possible to write an interesting discussion about the lack of difference when one is able to show why this may be the case. However, sometimes lack of variability is due to bad questionnaire design. Questions may have been written badly (see text box 3), or questions may have been selected that do not elicit variation. More fine-grained items could be developed or the research question could be refocused.

Most respondents left a particular question blank. What should I do?
This is a serious issue, and it should ideally be picked up in the testing phase as, at that point, changes can still be made to the questionnaire. Respondents may not understand the question, or it may ask for sensitive information. Rephrasing the item may help. The questionnaire may be too long, dull or impersonal, so it could be shortened, refocused, rephrased, or an attempt could be made to motivate respondents better to fill in the questionnaire.

Summary advice
Similar to preparing a semi-structured interview, designing a questionnaire begins with a process of generating questions. However, questionnaire construction should result in a much more structured format than interview preparation. A wide range of closed questions has been developed for questionnaires, as open-ended questions are less suited to the purposes of a questionnaire and should be used sparingly. However, they do have their place in questionnaire design and can fulfill important functions. Testing the questionnaire

before general distribution is an important, yet widely underestimated, step in questionnaire design. Researchers should consider carefully the choice of method for questionnaire administration, since some methods are more suited to particular situations. The choice of method can influence return rate and can limit the population to a particular type of respondent.

Bullet list of advice: the stages of questionnaire design

Developing a questionnaire
- Compose a problem statement and research question.
- Create a set of theoretically-driven ideas or topics.
- Identify the target population.
- Run a literature search to see whether a similar questionnaire has been developed.

Writing questions
- Write raw questions based on your ideas/topics.
- Refine the questions and turn them into questionnaire items, consisting of (1) clear instructions (with examples), (2) a question/statement, and (3) possible answers.
- Use a range of items, but avoid many open-ended questions.
- Observe the rules listed in text box 3 when writing items.
- Check questions for clarity, sensitivity, etc.
- Include multi-item scales (see text box 2).
- Keep the number of items asking for confidential information low.

Structuring the questionnaire
- Write an informative, reassuring and polite introduction and conclusion.
- Order the items into a clearly structured, logical sequence to form the questionnaire.
- Make starter questions involving and interesting.
- Put open-ended and personal questions towards the end.
- Limit the questionnaire to a maximum of four pages or 30 minutes of completion time.
- Create an attractive and professional design for the questionnaire (see text box 4).

Testing the questionnaire
- Test the questionnaire informally (read and think aloud).
- Pilot the questionnaire.
- Change the questionnaire based on results of these.

Administering the questionnaire
- Decide on questionnaire distribution based on the target population and research goals.
- Make the sample representative of the target population and large enough for statistical analysis.
- Think of ways to increase the quality and quantity of responses.
- Observe ethical guidelines and, if applicable, apply for ethical approval.

Processing and evaluating the questionnaire
- Assign all questionnaires a number.
- Note down codes and processing steps in a coding guide.
- Enter all data into a spreadsheet.
- Double-check and, if applicable, reverse the scores of negatively-worded items so they match other items that tap into the same concept.
- Check your data and consider carefully how to handle missing data.
- Consider reducing the number of variables.
- Evaluate the questionnaire for validity and reliability.

Analyzing the data
- Analyze the data and consider the type of respondents and extent of non-response, and how this may have affected any conclusions.
- Include technical data about the questionnaire and data collection in the methods section of your report.
- Use statistics, tables and figures in your analysis and consider complementing the questionnaire data with other sources of information.

Project ideas
Gender and vocabulary
Lakoff (1973, 49-52) argues that certain lexical items, such as *adorable*, *charming*, *sweet*, *lovely*, *divine*, certain color terms and "weak" swear words are more likely to be used by women. Compile a list of words for investigation and design a questionnaire to elicit responses on the usage (or attitudes towards, or both) of *one set* of these words. Explore links of a set of these words to different age groups, educational level or speaker sex by administering the questionnaire to a number of people. Quantify your results using inferential statistics and compare them with Lakoff's claims, paying particular attention to the correlations between the forms used (or attitudes towards them) and the social characteristics of your respondents.

Loss of dialect words
Trudgill (2000, 123-5) suggests that words in certain domestic and/or informal areas of social life (e.g., food and drink, clothing, children's games), and words and phrases in jocular, informal usage are more likely to be maintained in their regional form than other types of words. Devise a questionnaire and conduct interviews with three generations of local speakers (see Llamas 2007). Focus your investigation on lexical items in these, and some other, semantic fields. Do older speakers know more regional lexical items than younger speakers? Do younger speakers still have an active knowledge of these words, or merely a passive knowledge, or do they not know them at all?

Further reading and resources
Brown, James Dean. 2001. *Using Surveys in Language Programs*. Cambridge: Cambridge University Press.
De Vaus, David. 2005. *Surveys in Social Research,* 5th ed. London and New York: Routledge.
Dörnyei, Zoltán. 2003. *Questionnaires in Second Language Research: Construction, Administration and Processing*. Mahwah, NJ: Lawrence Erlbaum.
Gillham, Bill. 2007. *Developing a Questionnaire,* 2nd ed. London and New York: Continuum.

References
Aiken, Lewis R. 1997. *Questionnaires and Inventories: Surveying Opinions and Assessing Personality*. New York: Wiley.
Allard, Rial, and Rodrigue Landry. 1986. "Subjective Ethnolinguistic Vitality Viewed as a Belief System." *Journal of Multilingual and Multicultural Development* 7: 1-12.
Bard, Ellen Gurman, Dan Robertson, and Antonella Sorace. 1996. "Magnitude Estimation of Linguistic Acceptability." *Language* 72: 32-68.
Beebe, Leslie M., and Martha Clark Cummings. 1996. "Natural Speech Act Data versus Written Questionnaire Data: How Data Collection Method Affects Speech Act Performance. In *Speech Acts across Cultures: Challenges to Communication in a Second Language*, edited by Susan Gass, and Joyce Neu, 65-86. Berlin and New York: Mouton de Gruyter.
Bourhis, Richard Y., Howard Giles, and Doreen Rosenthal. 1981. "Notes on Construction of a 'Subjective Vitality Questionnaire' for Ethnolinguistic Groups." *Journal of Multilingual and Multicultural Development* 2: 145-155.
Campbell-Kibler, Kathryn. 2007. "Accent, (ing) and the Social Logic of Listener Perceptions."

American Speech 82: 32-64.

Chambers, J.K. 1994. "An Introduction to Dialect Topography." *English World-Wide* 15: 35-53.

Choi, Jinny K. 2005. "Bilingualism in Paraguay: Forty Years after Rubin's Study." *Journal of Multilingual and Multicultural Development* 26: 233-248.

Clark, Lynn, and Erik Schleef. 2010. "The Acquisition of Sociolinguistic Evaluations among Polish-Born Adolescents Learning English: Evidence from Perception." *Language Awareness* 19: 299-322.

De Vaus, David. 2005. *Surveys in Social Research,* 5th ed. London and New York: Routledge.

Dillman, Don A. 1978. *Mail and Telephone Surveys: The Total Design Method*. New York: Wiley.

Dörnyei, Zoltán. 2003. *Questionnaires in Second Language Research: Construction, Administration and Processing*. Mahwah, NJ: Lawrence Erlbaum.

Dyer, Colin. 2006. *Research in Psychology: A Practical Guide to Methods and Statistics*. Oxford: Blackwell.

Extra, Guus, and Kutlay Yagmur. 2004. *Urban Multilingualism in Europe*. Clevedon: Multilingual Matters.

Fuller, Janet M. 2005. "The Uses and Meanings of the Female Title Ms.". *American Speech* 80: 180-206.

Garrett, Peter. 2010. *Attitudes to Language*. Cambridge: Cambridge University Press.

Hatch, Evelyn, and Anne Lazaraton. 1991. *The Research Manual*. New York: Newbury House.

Labov, William, Sharon Ash, Maya Ravindranath, Tracey Weldon, Maciej Baranowski, and Naomi Nagy. 2011. "Properties of the Sociolinguistic Monitor." *Journal of Sociolinguistics* 15: 431-463.

Ladegaard, Hans. 1998. "National Stereotypes and Language Attitudes: The Perception of British, American and Australian Language and Culture in Denmark." *Language and Communication* 18: 251-274.

Lakoff, Robin. 1973. "Language and Woman's Place." *Language in Society* 2: 45-80.

Lambert, Wallace E. 1967. "The Social Psychology of Bilingualism." *Journal of Social Issues* 23: 91-109.

Llamas, Carmen. 2007. "A New Methodology: Data Elicitation for Regional and Social Language Variation Studies." *York Papers in Linguistics* 8: 138-163.

Orton, Harold, Stewart Sanderson, and John Widdowson. 1978. *The Linguistic Atlas of England*. London: Croom Helm.

Trudgill, Peter. 2000. *The Dialects of England,* 2nd ed. Oxford: Blackwell.