

10

Survey Research

The Questionnaire

The Interview

Developing a Survey Instrument

Survey research uses **questioning** as a strategy to elicit information from subjects in order to determine characteristics of selected populations on one or more variables.¹ *A written survey is called a **questionnaire**; an oral survey is called an **interview**.* Although they serve similar purposes in gaining information, each provides unique advantages and disadvantages to the researcher.

The Questionnaire

The mailed questionnaire has been heavily criticized in recent times and has fallen into disfavor as a device for gathering data. But it has been the **abuse and misuse** of this technique that has drawn the criticism, not the nature of the questionnaire itself.² Hastily constructed questionnaires, consisting of poorly worded questions, produce unreliable information at best and invalid results at worst. **A planned, well-constructed questionnaire can obtain information that is obtainable in no other way.**

Advantages

A questionnaire provides researchers several advantages over the interview.

Remote subjects

A questionnaire allows researchers to gather data from any part of the world. Through the use of existing postal systems, or, more recently, the internet, contact can be made with almost any literate population of interest. As a result, subjects can be randomly selected from **wide-ranging populations**, such as “Southern Baptists in America.”

Researcher influence

The standardized wording of a printed questionnaire reduces researcher interference in subject responses. The researcher’s gender, appearance, mannerisms, social skills and the like have **no effect** on how subjects respond to the questions.

Cost

Even with the high cost of postage, the mailed questionnaire is still the most

Remote Subjects
Influence
Cost
Reliability
Convenience

¹Gay, 191

²Hopkins, 145

economical means, per subject, for gathering data. The economy of process allows researchers to increase the number of subjects in the study. Increased sample size provides more accurate estimates of population characteristics. Not only does the questionnaire save money directly, it also saves time. Consider the difference in processing time between mailing out 1000 questionnaires and interviewing 1000 subjects.

Dr. Jay Sedgwick of Dallas Theological Seminary (Southwestern Ph.D. graduate, 2003) analyzed differences in costs and data quality among three data collection techniques. He investigated direct collection from conference participants, e-mail responses to a website, and a traditional mailed survey. Conventional wisdom suggested that email would provide quality data at greatly reduced costs. He found this not to be the case. Direct collection can be frustrated by restrictions imposed by conference leaders. Return rate was lowest among email recipients -- and responses provided the least reliability. **The mailed survey was the most expensive, but provided the best return rate and quality of data.**

Reliability

The **standardized wording and structured questions** of the questionnaire provide a higher reliability in the data than is practically able to be obtained by interview.

Subjects' convenience

The questionnaire is completed at the subjects' convenience. They can consider each question, check necessary records, and reflect on their answers. **Data is more valid** under these conditions than when answers are given "on the spot" in an interview.

Disadvantages

There are disadvantages in using a mailed questionnaire that are overcome by the interview. These include the questionnaire's rate of return, its inflexible structure, the level of subject motivation, the limitation of not observing the subject as questions are answered, and the loss of control over the questioning process.

Rate of return

The biggest drawback in using questionnaires is the rate of return of the completed forms. Let me illustrate. You have drawn a representative sample from which to collect data. But when the questionnaires stop coming in, you find that only 35% of the sample responded. Why did 65% not respond? Are they different in some systematic way from the 35% who did? Does this have a bearing on your variables? You have no way of knowing. And this is a confounding variable (a source of error) in your study.

Therefore, valid mail surveys have extensive follow-up procedures to produce the largest possible rate of return. How large? Some texts say 50%, some 60%. We suggest that doctoral students gathering data for their dissertation aim to get a 70% response rate or better. The return rate is computed as a percentage as follows:⁴

$$\text{rate} = (R / (S - ND)) \times 100$$

where R equals the number of questionnaires that were returned, S the number

⁴Hopkins, 148

sent out, and ND the number unable to be delivered (“return to sender”). For example, if you **send out 180** questionnaires, and have **10 undelivered** and **150 returned**, your return rate is

$$\text{rate} = (150 / (180 - 10)) \times 100 =$$

$$\text{rate} = (150 / 170) \times 100 =$$

$$\text{rate} = (.882353) \times 100 = \quad \mathbf{88.24\%}$$

The major problem with a low rate of return is that the **data may not reflect the true measure of the sample you chose to study**. Part of the sample volunteered to comply with the research request, and returned the completed form. Others ignored the questionnaires. The difference in willingness to comply may relate to some aspect of your study. So, a low return rate (i.e., less than 50%) of survey forms may well give a distorted view of the target population. Higher return rates (60% - 80%) increase confidence that the **returned data correctly reflects the sample, which, in turn, reflects characteristics in the population from which the sample was drawn**.

Inflexibility

The structure of a written questionnaire (which increases reliability of subject responses) also **limits the researcher’s ability to probe subject responses** or clarify misunderstandings. To write a questionnaire which directs subjects through a series of **probes** (follow-on questions which move the subjects deeper) and **branches** (skips to following sections) usually results in a **complex, perhaps confusing, instrument**. The written questionnaire is much more inflexible than the interview as a device for gathering data.

Subject motivation

There is no way to determine the motivation level of the subjects when they fill out the form. What is the subject's mental state: **overworked, busy, contemplative, focused?** The questionnaire cannot measure this as an interviewer would.

Verbal behavior only

Questionnaire data is limited to the **responses subjects choose to make**. Researchers can’t know the mental or emotional state subjects are in when they complete the questionnaire. Researchers can not observe **how subjects behave** while completing the questionnaire. They merely get subjects’ verbal responses about their behavior.

Loss of control

Researchers give up control over the administration of the questions on the survey form. There is no control over the **subject’s environment, time, or attention to the task**. There is no control over the **order** in which the questions are answered. There is no control over leaving answers blank. This loss of control creates “missing data” or “distorted data,” which can pose **problems in statistical analysis**.

Types of questionnaires

Questionnaires consist of questions of two basic types: structured and unstructured. A **structured question**, sometimes called “**close-ended**,” provides a predeter-

quantifiable. Asking unambiguous, meaningful questions is difficult. Researchers write questions according to **standard guidelines** (see Chapter 11). They then **evaluate** and **revise** questions as needed. Finally, questions are **validated** for “clarity” and “meaningfulness” by objective judges. The quality of the questionnaire is built directly on the quality of each question in it.

Clear instructions

Questionnaire designers know how to fill out their questionnaires because they created them. It is easy to assume that *anyone* would know how to complete the form. Such assumptions can doom a survey study. **Subjects need clear instructions** for completing the survey. If there are several sections in the form, specific instructions should be given for each section.

Understandable format

The order of questions in the questionnaire should not confuse subjects. Answers should be easy to select. **Eliminate complex structures** as much as possible (i.e., avoid probes into telescoped questions, or jumps to different sections in the form). A simple structure will produce more reliable data.

Demographics at the end

“Demographic questions” describe the subject who is answering the questionnaire in general categories: **age, gender, economic status, education level, and other such personal information**. **Place these questions at the end** of the questionnaire.

First, by placing content questions first, you lead subjects to make thoughtful responses quickly. After investing time to answer content questions, subjects are **more likely to fill out the demographic questions**, and -- most importantly! -- **return the form** to the researcher (increasing return rate!).

When you place demographic questions first, subjects can get a feeling of invasion, and simply throw the document away. **“Demographics last” increases the validity of answers and the return rate.**

The Interview

In its most basic form, the interview is an “oral questionnaire” where subjects answer questions “live,” in the presence of researchers or their assistants.

Advantages

There are several key advantages to using an interview approach over the mailed questionnaire.

Flexibility

A face-to-face interview affords **greater flexibility** than the more rigid written questionnaire. Interviewers can **branch from one set of questions to another** without confusing the subject. The interviewer can **clarify misunderstandings** of questions or instructions. If a subject makes an unexpected comment, the interviewer can investigate with **follow-up questions**. The survey **instrument can be more complex**. This is because a trained interviewer is better able to handle branching and probing than the

Flexibility
Motivation
Observation
Broad Application
No Mailing

untrained subject.

Motivation

When interviewers and subjects are facing each other, the **motivation level** of subjects can be directly observed and noted. **Rapport** between the interviewer and subject can create a more cooperative atmosphere, which **increases the validity** of the subjects' responses.

Observation

Researchers can record the **manner**, as well as the content, **of subjects' answers**. **Mood, attitude, bias, emotional state, body language, facial expression** – these are excellent clues to the quality of answers being received.

Broader Application

Interviewers can gather information from **people who cannot read**. Young children, senior adults with poor eyesight, and groups for whom English is a second language can give better information through an interview than they can with a written questionnaire.

Freedom from mailings

Interviewing subjects precludes all of the **problems associated with mailing out** (and getting back!) surveys: postage and materials' costs, bad addresses, return mail, return rates, and the like.

Disadvantages

Likewise, there are some major disadvantages with the interview.

Time

Cost

Int. Effect

Int. Variables

Time

Questioning scores of subjects one by one, in person, **requires far more time** than sending out survey forms by mail. In order to acquire a sufficient sample size of subjects, researchers may need to enlist and train a group of assistants to help in the interviewing. The training of interviewers is a monumental task and requires a great deal of time to insure that **all the interviewers administer the survey the same way**.

Cost

While the cost of postage is avoided by interviewing subjects, interviewing involves other expenses. **Payment of assistants** is more expensive than stamps, but is necessary if you plan to do a professional study. The printed interview guide will cost about the same to print as a comparable questionnaire. Additionally, interviewing may require **travel costs or long distance phone costs**. This means that, given a set research budget, the **number of subjects you can interview will be less** than the number you can survey by mail. This results in a **loss of statistical power** in your study.

Interviewer effect

Do you remember the problems of inference and interference associated with observation research (Chapter 9)? All of the "human" problems we discussed regard-

ing observational research apply to interviewers as well. **Personal characteristics, social skills, competence, gender, appearance** — all of these factors will produce variance in subject responses to questions, unless they can be controlled by **homogeneous enlistment and adequate training**.

Recording
Skills
Demographics
Modes

Interviewer variables

Differences among interviewers — their values, beliefs, and biases — may introduce distortion in the way interviewers interpret and record responses by subjects.

Types of Interviews

Earlier in the chapter we defined questions which are “structured” (close-ended) and “unstructured” (open-ended). A **“structured interview” is simply an oral questionnaire**. Researchers ask the questions in the order they appear on the form. An **unstructured, or “free response,” interview presents the subject with open-ended questions**. Researchers can follow up answers with probes and skips without confusing subjects.

Just as the structured question increases reliability and decreases the range of answers, so does the structured interview. Just as the unstructured question increases answer variance and decreases the ability to quantify research data, so does the unstructured interview.

Guidelines

Here are some specific guidelines to consider if you plan to use the interview.

Recording responses

Subject responses need to be accurately **recorded during the interview**. Recording the responses after the interview invites problems with subjective interpretation, selective memory, or unconscious bias.

Interviewer skills

Before the study begins, interviewers should be given adequate practice in **asking questions, fielding responses, probing, clarifying instructions, and recording answers**. If skill levels differ among the interviewers, extraneous variability will be introduced into the data, making findings ambiguous.

Objective
Write Items'
Select Items
Format
Instructions
Pilot Study

Demographics first

Ask **demographic questions first** in the interview. By asking non-threatening demographic questions at the beginning of an interview session, researchers establish rapport between themselves and subjects. Such rapport improves the level of trust between researchers and subjects, which, in turn, increases the validity of answers received. **Demographics come FIRST in the interview, LAST in the questionnaire.**

Alternative modes

The face-to-face interview is only one mode of interviewing. Researchers can conduct interviews by **telephone**. This extends the range of the interview far beyond that possible with face-to-face meetings. Researchers can also mail **cassette tapes** to subjects. The subject listens to the question on tape and records his answer. This is less

expensive than interviewing by phone, and extends the interview beyond that possible with face-to-face meetings. These modes provide more subject information than the written questionnaire. **Voice characteristics, subject hesitation, and tone of voice provide clues to subject motivation.** Still, none of these alternatives permit **direct observation** of the subject as in the face-to-face meeting.

Developing the Survey Instrument

The following steps should be taken in developing a questionnaire or interview guide (See Borg and Gall, Chapter 11, for details).

Specify Survey Objective

Determine the objective of the survey. What is the **focus** of the research? What exactly do they **need to know**? What are the related areas? Include in the instrument **only what is needed for the study.**

Write Good Questions

Develop an “item pool” of good questions (i.e., more questions than are needed) which relate to the study. Each question should be clear and definite. Each should generate an answer that is clear and quantifiable.

Evaluate and Select the Best Items

Submit the item pool to a panel of evaluators. This panel should consist of 5 to 8 experts in either the content area of the survey, or research design, or both. Have them rate each item in the pool on the basis of **relevance to the study**, and **clarity of composition**. Combine the ratings of all the judges for all the items to **determine which items are best suited for your study.**

Format the Survey

Place the questions in an **attractive format** that enhances transition from question to question. If the instrument is to be used as a written questionnaire, provide an easy way to record responses.

Write Clear Instructions

Write clear, concise instructions to **insure that the survey is done correctly.** Let several people who are unfamiliar with the study read the instructions, and explain what they would do to complete the instrument. **Revise the instructions as needed.**

Pilot Study

Select a group of people similar to those who will be involved in the actual study. **Use the instrument to gather data from them.** Check for any problems the pilot group encountered while completing the form. Ask the group for suggestions. Revise the instrument as needed.

Summary

Survey research gathers specific data from a large group of people that possess that data. We have developed advantages, disadvantages, and guidelines for using the mailed questionnaire and the personal interview.

Examples

Dr. Margaret Lawson designed her own questionnaire to gather data for her study of selected variables and their relationship to whether or not Life Launch pilot churches (1987-88, n=120) continued offering LIFE courses (MasterLife, Experiencing God, Pa-renting by Grace, and the like, 1992-93).⁵ She collected data on what courses were offered, who led the courses (pastor, staff or lay), how the materials were paid for (participants paid full, part, or none), as well as attendance in Sunday School and Discipleship Training, church membership, number of baptisms, gifts and initiated ministries. Her survey instrument is located at the end of the chapter.

Her procedure for developing the survey form was as follows:

The steps in developing the survey instrument were as follows:⁶

1. Questions were designed for subjects' responses to reflect information on the factors present in those churches that did, and those that did not, continue to offer LIFE courses. The same two-page questionnaire was sent to all the churches. Drew and Hardman suggest that respondents are more likely to complete a one or two page questionnaire.⁹¹
2. A validation panel of experts drawn from the areas of adult discipleship training, research design, and the field of religious education were asked to rate the relevance and clarity of each question. . . . Following the panel's critique and evaluation eight surveys were returned. Suggestions were offered by Avery Willis and Clifford Tharpe and the appropriate revisions and modifications were incorporated.⁹³

Dr. Darlene Perez developed her Spanish-language survey to gather information from youth and youth leaders in Puerto Rico concerning Youth Curriculum materials. Here was her procedure:⁷

The Youth Sunday School Curriculum Questionnaire was designed to obtain data related to the youth curriculum variables identified in the problem statement. The procedures for designing the instrument followed guidelines in . . . *Research Design and Statistical Analysis for Christian Ministry*.²

. . . . The first step . . . consisted of stating the purpose of the study with clear instructions on how to complete the questionnaire. Second, an item pool of questions was developed. The questions were written in an objective, structured and close-ended form. They were designed to obtain information about the curriculum being used by participants, the degree of curriculum satisfaction, the disposition to change curriculum, the preference for a Bible study approach, and the preference for a teaching/ learning method.

Third, the questionnaire included a section at the end for demographic information. A copy of this questionnaire is provided as appendix H. . . .

The questionnaire was submitted to a validation panel of seven experts in the areas of education or curriculum development or youth knowledge. Each panel member considered points of clarification and the validity of each item. The best, most clear, and most valid questions were selected for the survey. . . .

A proposed pilot study with youth and youth leaders not included in the research was to

⁵Margaret P. Lawson, "A Study of the Relationship Between Continuance of LIFE Courses in the LIFE Launch Pilot Churches and Selected Descriptive Factors," (Ph.D. dissertation, Southwestern Baptist Theological Seminary, 1994)

⁶*Ibid.*, 25-26

⁷Perez, 55-58

be completed in Puerto Rico. The validation procedures with a pilot group the following steps:

1. The Sunday School Board provided a list of Baptist and non-Baptist churches in Puerto Rico currently using the Spanish Convention Uniform Series. A non-Baptist, evangelical church (Alianza Cristiana y Misionera, Rio Piedras, Puerto Rico) was selected for the pilot study. The questionnaire was submitted during a youth Sunday School class to a group of thirteen youth and three youth leaders. Corrections were made to clarify the instructions on how to complete the questionnaire. Also, the term "youth" (joven) was changed to Intermedios y Pre-jyvenes along with a parenthesis stating the ages twelve to seventeen.

2. After making corrections, it was felt that the instrument needed further validation. A second validation pilot study was performed with a group of thirty youth and youth leaders from the Baptist Convention of Puerto Rico who were meeting at a youth camp during July, 1990. After this validation process, the following changes were made. . . [six changes listed].

3. In order to make the validation process more consistent, a third pilot study was performed with a group of thirty youth and youth leaders from the Puerto Rico Southern Baptist Association, at a youth camp in July 1990. Only a few corrections were made in the section of demographics. . . [two changes listed]. A copy of the validated questionnaire appears as appendix I. [the English-language version is included at the end of the chapter]

Vocabulary

close-ended question	type of question which provides a set of answers to choose from (a b c d)
demographics	personal data on subjects (gender, ed level, years in ministry)
item pool	a collection of test items from which a subset is drawn for creating an instrument
open-ended question	question which allows subject to answer in his/her own words
rate of return	percentage of mailed questionnaires which are completed and returned
structured question	synonym for close-ended question
unstructured question	synonym for an open-ended question
validation panel	judges who analyze the clarity and relevance of questions in an item pool

Study Questions

1. Compare and contrast the advantages and disadvantages of the interview and questionnaire.
2. Define "structured" or "close-ended" questions. Give an example.
3. Define "unstructured" or "open-ended" questions. Give an example.
4. Discuss the pros and cons of using structured or unstructured questions.
5. Differentiate the handling of demographic questions in the questionnaire and interview.

Sample Test Questions

1. The criticism of survey research is based primarily on the
 - A. lack of depth of information gained by the survey approach
 - B. availability of better data gathering instruments
 - C. absence of good statistical tools to analyze survey data
 - D. abundance of poorly constructed survey instruments
2. One major advantage of the questionnaire is that it
 - A. generally produces a high return rate
 - B. possesses a high degree of flexibility
 - C. eliminates the researcher's influence on subjects
 - D. focuses only on the verbal behavior of subjects
3. You send out 1000 questionnaires. 200 are returned marked "Addressee unknown — Return to Sender." 400 are completed and mailed back. Your rate of return is

A. 50%	B. 400
C. 40%	D. 600
4. The best advantage of close-ended questions is the _____ of the answer.

A. reliability	B. flexibility
C. range and depth	D. correctness
5. An open-ended question
 - A. decreases the validity of the answer
 - B. increases the reliability of the answer
 - C. increases the variability of the answer
 - D. increases the objectivity of the answer
6. A major disadvantage of the interview is
 - A. its broad application
 - B. its inflexibility
 - C. the higher cost of the data
 - D. the limitation of measuring verbal behavior only

LIFE LAUNCH SURVEY⁷

Please complete the information requested concerning LIFE courses in your church at the time of the LIFE Launch project and the present time.

FIRST YEAR refers to the reporting year following the LIFE LAUNCH, October 1987 to September 1988.

LAST YEAR refers to the latest reporting year, October 1992 to September 1993.

1. What LIFE courses did you offer in the first year of the LIFE Launch?

MasterLife	MasterBuilder
MasterDesign	Parenting by Grace
None	Other (please specify) _____

2. What LIFE courses have you offered during the last year?

MasterLife	MasterBuilder
MasterDesign	DecisionTime
Parenting by Grace I	Parenting by Grace II
Covenant Marriage	WiseCounsel
Disciple's Prayer Life	Experiencing God
Step by Step	Step by Step
Through the Old Testament	Through the New Testament
LifeGuide to Discipleship and Doctrine	None
Other (please specify) _____	

3. Which staff member began the initial LIFE courses?

Pastor	Associate Pastor
Minister of Education	Other (please specify) _____

4. Did any lay person have a leadership position from the beginning?

Yes	No
-----	----

5. Has a staff person led LIFE courses in the past year?

Yes	No
-----	----

6. Has a lay person led LIFE courses in the past year?

Yes	No
-----	----

(OVER)

⁷Lawson, 65-66

7. Indicate how participants paid for their study materials in the first year:
- | | |
|--|------------------------------------|
| Participants paid full price | Participants paid some of the cost |
| Materials were provided free of charge | Other (please specify) |
| | _____ |
8. Indicate how participants paid for their study materials in the past year:
- | | |
|--|------------------------------------|
| Participants paid full price | Participants paid some of the cost |
| Materials were provided free of charge | Other (please specify) |
| | _____ |
9. Indicate the total number of participants in all LIFE groups:
- _____ FIRST YEAR _____ LAST YEAR
10. Indicate the average number of participants in individual LIFE groups:
- _____ FIRST YEAR _____ LAST YEAR
11. Complete the following information about your church during the LIFE Launch year:
- | | |
|--|--|
| _____ Resident Church Membership | _____ Total Baptisms |
| _____ Average Sunday School Attendance | _____ Average Discipleship Training Attendance |
| _____ Total Gifts | |
12. Complete the following information about your church during the past year:
- | | |
|--|--|
| _____ Resident Church Membership | _____ Total Baptisms |
| _____ Average Sunday School Attendance | _____ Average Discipleship Training Attendance |
| _____ Total Gifts | |
13. What specific ministries have been initiated by LIFE course participants?
-

Please return the completed survey to:

Margaret Lawson
address
address
city, state

Would you like to receive a summary of the results of the survey? _____

APPENDIX I⁸VALIDATED YOUTH SUNDAY SCHOOL MATERIALS QUESTIONNAIRE
(ENGLISH TRANSLATION)

The purpose of this questionnaire is to obtain basic information about the Sunday School youth materials being used in your church and to identify the curriculum preferences of youth and youth leaders.

Instructions: Select with a check mark (✓) the best alternative.
Choose only one response for each question

1) Which Sunday School materials are currently being used in your church?

1. El Interpretate (Convention Uniform Series of the Sunday School Board)
2. Enseñanza Bíblica Para Jóvenes, (Diálogo y Acción Program of The Spanish Publishing House)
3. Materials designed in your own church.
4. Exploradores y Embajadores (Editorial Vida, Miami, Florida)
5. Other, specify: _____

2) How satisfied are you with the Youth Sunday School materials used in your church?

1. Very satisfied
(I like it very much)
2. Satisfied
(I like it)
3. Dissatisfied
(I do not like it)
4. Very dissatisfied
(I do not like at all)

3) Are you interested in changing Youth Sunday School materials?

1. Yes 2. No 3. Indifferent

4) If you were going to change Youth Sunday School materials, which Bible study approach would you prefer?

1. I would like to study the Bible systematically, book by book, covering the whole Bible within a certain period of time.
2. I would like to study the Bible by themes that relate to daily life, such as the family, friendships, the community, and others.
3. I would like to study the Bible by doctrinal themes, such as the doctrine of God, Jesus, the Holy Spirit, Church, Bible, prayer, and others.
4. I would like to have Bible studies about discipleship, Christian growth and formation.

⁸Perez, 108-109

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5. If you were going to change the Youth Sunday School materials, which teaching/learning methods would you prefer?
1. Conference -- The teacher would expose and explain the Bible passage.
2. Questions and answers -- The teacher would use questions to promote group participation.
3. Small group work -- The class would be divided into small groups. Each group is assigned to work on a task and will report to the whole class its findings.
4. Individual tasks -- The teacher would assign questions or tasks to each student and he/she would work independently.
5. Other, specify: _____

Please complete the following information:

Position:

- Youth
- Pastor
- Youth Minister
- Minister of Christian Education
- Sunday School Director
- Youth teacher
- Other

Sex: _____ Age: _____

- Male
- Female

Denomination:

- Southern Baptist
- American Baptist
- Other, specify: _____

Church name: _____

Have you completed this questionnaire before? yes no

Comments/suggestions:
