1) Overview
2) Questionnaire
   i. Questionnaire Definition
   ii. Objectives of a Questionnaire
3) Questionnaire Design Process
4) Specify the Information Needed
5) Type of Interviewing Method
6) Individual Question Content
   i. Is the Question Necessary?
   ii. Are Several Questions Needed Instead
Agenda

7) Overcoming Inability to Answer
   i. Is the Respondent Informed?
   ii. Can the Respondent Remember?
   iii. Can the Respondent Articulate?

8) Overcoming Unwillingness to Answer
   i. Effort Required of the Respondent
   ii. Context
   iii. Legitimate Purpose
   iv. Sensitive Information
   v. Increasing the Willingness of Respondents

9) Choosing Question Structure
   i. Unstructured Question
   ii. Structured Question

10) Choosing Question Wording
    i. Define the Issue
    ii. Use Ordinary Words
    iii. Use Unambiguous Words
    iv. Avoid Leading or Biasing Questions
    v. Avoid Implicit Alternatives
    vi. Avoid Implicit Assumptions
    vii. Avoid Generalizations & Estimates
11) Determining the Order of Questions
   i. Opening Questions
   ii. Type of Information
   iii. Difficult Questions
   iv. Effect on Subsequent Questions
   v. Logical Order
12) Form & Layout
13) Reproduction of the Questionnaire
14) Pretesting

• A questionnaire is a formalized set of questions for obtaining information from respondents.
Questionnaire Objectives

- It must translate the information needed into a set of specific questions that the respondents can and will answer.
- A questionnaire must uplift, motivate, and encourage the respondent to become involved in the interview, to cooperate, and to complete the interview.
- A questionnaire should minimize response error.

Youth Research Achieves Questionnaire Objectives

Youth research (YR) of Brookfield, Connecticut, conducts an omnibus survey of children every quarter. Typically, YR interviews 150 boys and girls between ages 6 and 8, along with 150 boys and girls between ages 9 and 12. YR uses mall intercepts of mothers to recruit for its one-on-one interviews, which last eight minutes. The study obtains children's views on favorite snack foods, television shows, commercials, radio, magazines, buzzwords, and movies.
YR intentionally keeps its questionnaire to eight minutes because of attention span limits of children. YR President Karen Forcade notes that some clients attempt to meet all their research objectives with one study, instead of surveying, fine-tuning objectives, and re-surveying. In doing so, these clients overlook attention limits of young respondents when developing questionnaires.

“The questionnaires keep going through the approval process and people keep adding questions, ‘Well let’s ask this question, let’s add that question, and why don’t we talk about this also,’” Forcade said. “And so you end up keeping children 25 minutes in a central location study and they get kind of itchy.” The response error increases and the quality of data suffers.

Forcade notes other lessons from interviewing children. When asking questions, interviewers should define the context to which the question refers. “It involves getting them to focus on things, putting them in a situation so that they can identify with it,” Forcade said. “For example, when asking about their radio listening habits, we said, ‘What about when you’re in Mom’s car, do you listen to the radio?’ rather than, ‘How often do you listen to the radio? More than once a day, once a day, more than once a week?’ Those are kind of big questions for little children.”

Questionnaires designed by Youth Research to obtain children’s views on favorite snack foods, television shows, commercials, radio, magazines, buzzwords, and movies attempt to minimize response error.
The first step in questionnaire design is to specify the information needed.

This is also the first step in the research design process.
Mail Questionnaire

- Please rank order the following stores in order of your preference to shop at these stores. Begin by picking out the one store that you like most and assign it a number 1. Then find the second most preferred department store and assign it a number 2. Continue this procedure until you have ranked all the stores in order of preference. The least preferred store should be assigned a rank of 10. No two stores should receive the same rank number.

<table>
<thead>
<tr>
<th>Store</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Benetton</td>
<td></td>
</tr>
<tr>
<td>2. Stradivarius</td>
<td></td>
</tr>
<tr>
<td>3. Salsa</td>
<td></td>
</tr>
<tr>
<td>4. Bershka</td>
<td></td>
</tr>
<tr>
<td>5. Sara</td>
<td></td>
</tr>
<tr>
<td>6. Maluka</td>
<td></td>
</tr>
<tr>
<td>7. Pinkie</td>
<td></td>
</tr>
<tr>
<td>8. Mango</td>
<td></td>
</tr>
<tr>
<td>9. Americo Tavar</td>
<td></td>
</tr>
<tr>
<td>10. Morgan</td>
<td></td>
</tr>
</tbody>
</table>
### Telephone Questionnaire

- I will read to you the names of some stores. Please rate them in terms of your preference to shop at these stores. Use a ten point scale, where 1 denotes not so preferred and 10 denotes greatly preferred. Numbers between 1 and 10 reflect intermediate degrees of preference. Again, please remember that the higher the number, the greater the degree of preference. Now, please tell me your preference to shop at ........(READ ONE STORE AT A TIME)

<table>
<thead>
<tr>
<th>Store</th>
<th>Not So Preferred</th>
<th>Greatly Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benetton</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>Stradivarius</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>

### Personal Questionnaire

- (HAND STORE CARDS TO THE RESPONDENT). Here is a set of store names, each written on a separate card. Please examine these cards carefully. (GIVE RESPONDENT TIME). Now, please examine these cards again and pull out that card which has the name of the store you like the most, i.e., your most preferred store for shopping. (RECORD THE STORE NAME AND KEEP THIS CARD WITH YOU). Now, please examine the remaining nine cards. Of these remaining nine stores, what is your most preferred store for shopping? (REPEAT THIS PROCEDURE SEQUENTIALLY UNTIL THE RESPONDENT HAS ONLY ONE CARD LEFT)

<table>
<thead>
<tr>
<th>Store Rank</th>
<th>Name of the Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1</td>
<td></td>
</tr>
<tr>
<td>2. 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>10. 10</td>
<td></td>
</tr>
</tbody>
</table>
**Electronic Questionnaire**

- This question for e-mail and Internet questionnaires will be very similar to that for the mail questionnaire.
- In all these methods, the questionnaire is self-administered by the respondent.

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**Individual Question Content**

**Is the Question Necessary?**

- If there is no satisfactory use for the data resulting from a question, that question should be eliminated.
- Sometimes it’s useful to ask some neutral questions at the beginning of the questionnaire to establish involvement and rapport, particularly when the topic of the questionnaire is sensitive or controversial.
### Individual Question Content

**Are Several Questions Needed Instead of One?**

| Hypothesis 1: |
| Do you think Coca-Cola is a tasty and refreshing soft drink? |

| Hypothesis 2: |
| Do you think Coca-Cola is a tasty soft drink? and Do you think Coca-Cola is a refreshing soft drink? |

Sometimes, several questions are needed to obtain the required information in an unambiguous manner. Consider the question, “Do you think Coca-Cola is a tasty and refreshing soft drink?” (Incorrect)

Such a question is called a **double-barreled question**, because two or more questions are combined into one. To obtain the required information, two distinct questions should be asked:

“Do you think Coca-Cola is a tasty soft drink?” and “Do you think Coca-Cola is a refreshing soft drink?” (Correct)
Overcoming Inability To Answer

- Researcher should not assume that respondents can provide accurate or reasonable answers to all questions.

Is the Respondent Informed?

- In situations where not all respondents are likely to be informed about the topic of interest, **filter questions** that measure familiarity and past experience should be asked before questions about the topics themselves.

- A “don't know” option appears to reduce uninformed responses without reducing the response rate.
Can the Respondent Remember?

How many gallons of soft drinks did you consume during the last four weeks? (Incorrect)

How often do you consume soft drinks in a typical week? (Correct)
1. ___ Less than once a week
2. ___ 1 to 3 times per week
3. ___ 4 to 6 times per week
4. ___ 7 or more times per week

Can the Respondent Remember?

What brands of soft drinks do you remember being advertised last night on TV?

Which of these brands were advertised last night on TV?

Coca-Cola
7-up
Ice-Tea

.................
Can the Respondent Articulate?

- Respondents may be unable to articulate certain types of responses, e.g., describe the atmosphere of a store.
- Respondents should be given aids, such as pictures, maps, and descriptions to help them articulate their responses.

Overcoming Unwillingness To Answer

Effort Required of the Respondents

- Most respondents are unwilling to devote a lot of effort to provide information.
Please list all the departments from which you purchased merchandise on your most recent shopping trip to a department store.  

(Incorrect)

In the list that follows, please check all the departments from which you purchased merchandise on your most recent shopping trip to a department store.

1. Women's dresses
2. Men's apparel
3. Children's apparel
4. Cosmetics
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. Jewelry
17. Other (please specify)  

(Correct)

**Overcoming Unwillingness To Answer**

**Context**
- Respondents are unwilling to respond to questions which they consider to be inappropriate for the given context.
- The researcher should manipulate the context so that the request for information seems appropriate.

- For example, questions about personal hygiene habits may be appropriate when asked in a survey sponsored by any medical association, but not in one sponsored by a fast food restaurant!

- For example, before asking for information on personal hygiene in a survey for a fast food restaurant, the context could be manipulated by making the following statement:
  
  “As a fast food restaurant, we are very concerned about providing a clean and hygienic environment for our customers. Therefore, we would like to ask you some questions related to personal hygiene.”
Overcoming Unwillingness To Answer

Legitimate Purpose

why should a firm marketing cereals want to know their age, income and occupation?

- Explaining why the data are needed can make the request for the information seem legitimate and increase the respondents' willingness to answer.

“To determine how the consumption of cereal and preferences for cereal brands vary among people with different ages, incomes and occupations, we need information on …”

Overcoming Unwillingness To Answer

Sensitive Information

Respondents are unwilling to disclose, at least accurately, sensitive information because this may cause embarrassment or threaten the respondent's prestige or self-image.
Increasing the Willingness of Respondents

- Place sensitive topics at the end of the questionnaire.
- Preface the question with a statement that the behavior of interest is common.
- Ask the question using the third-person technique: phrase the question as if it referred to other people.
- Hide the question in a group of other questions which respondents are willing to answer. The entire list of questions can then be asked quickly.
- Provide response categories rather than asking for specific figures.

Choosing Question Structure

Unstructured Questions

- **Unstructured questions** are open-ended questions that respondents answer in their own words.

  What is your occupation? ____________________
  Who is your favorite political figure? ___________
  Do you intend to buy a new car within the next six months? ______________________
**Choosing Question Structure**

**Structured Questions**

- **Structured questions** specify the set of response alternatives and the response format.

- A structured question may be multiple-choice or dichotomous.

---

**Choosing Question Structure**

**Multiple-Choice Questions**

- In multiple-choice questions, the researcher provides a choice of answers and respondents are asked to select one or more of the alternatives given.

Do you intend to buy a new car within the next six months?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely will not buy</td>
</tr>
<tr>
<td></td>
<td>Probably will not buy</td>
</tr>
<tr>
<td></td>
<td>Undecided</td>
</tr>
<tr>
<td></td>
<td>Probably will buy</td>
</tr>
<tr>
<td></td>
<td>Definitely will buy</td>
</tr>
<tr>
<td></td>
<td>Other (please specify)</td>
</tr>
</tbody>
</table>
• How did you make your reservation? (please pick one only)
  – Airline web site
  – Airline phone reservations or ticket office
  – Through travel agent
  – Other

• Based on your experience of today’s flight, would you select this airline for your next trip on this route?
  – Definitely would
  – Probably would
  – Might/ might not
  – Probably not
  – Definitely not

---

Choosing Question Structure

Dichotomous Questions

• A dichotomous question has only two response alternatives: yes or no, agree or disagree, and so on.
• Often, the two alternatives of interest are supplemented by a neutral alternative, such as “no opinion,” “don’t know,” “both,” or “none.”

Do you intend to buy a new car within the next six months?

   _____ Yes
   _____ No
   _____ Don’t know
Choosing Question Wording

- Question wording is the translation of the desired question content and structure into words that respondents can clearly and easily understand.

- Unless the respondents and the researcher assign exactly the same meaning to the question, the results would be seriously biased.

Choosing Question Wording Guidelines

- Define the issue
- Use ordinary words
- Use unambiguous words
- Avoid leading questions
- Avoid implicit alternatives
- Avoid implicit assumptions
- Avoid generalizations and estimates
- Use positive and negative statements
Define the Issue

- Define the issue in terms of who, what, when, where, why, and way (the six Ws). Who, what, when, and where are particularly important.

Which brand of shampoo do you use?  (Incorrect)

Which brand or brands of shampoo have you personally used at home during the last month?
In case of more than one brand, please list all the brands that apply.  (Correct)

---

<table>
<thead>
<tr>
<th>The W's</th>
<th>Defining the Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who</td>
<td>The Respondent</td>
</tr>
<tr>
<td></td>
<td>It is not clear whether this question relates to the individual respondent or the respondent's total household.</td>
</tr>
<tr>
<td>What</td>
<td>The Brand of Shampoo</td>
</tr>
<tr>
<td></td>
<td>It is unclear how the respondent is to answer this question if more than one brand is used.</td>
</tr>
<tr>
<td>When</td>
<td>Unclear</td>
</tr>
<tr>
<td></td>
<td>The time frame is not specified in this question. The respondent could interpret it as meaning the shampoo used this morning, this week, or over the past year.</td>
</tr>
<tr>
<td>Where</td>
<td>At home, at the gym, on the road?</td>
</tr>
</tbody>
</table>
Use Ordinary Words

Ordinary words should be used in a questionnaire and they should match the vocabulary level of the respondents

“Do you think the distribution of soft drinks is adequate?” (Incorrect)

“Do you think soft drinks are readily available when you want to buy them?” (Correct)

Use Unambiguous Words

In a typical month, how often do you shop in department stores?

- Never
- Occasionally
- Sometimes
- Often
- Regularly (Incorrect)

In a typical month, how often do you shop in department stores?

- Less than once
- 1 or 2 times
- 3 or 4 times
- More than 4 times (Correct)
Avoid Leading or Biasing Questions

- A leading question is one that clues the respondent to what the answer should be, as in the following:

Do you think that patriotic Americans should buy imported automobiles when that would put American labor out of work?

- Yes
- No
- Don't know

   (Incorrect)

Do you think that Americans should buy imported automobiles?

- Yes
- No
- Don't know

   (Correct)

Avoid Implicit Alternatives

- An alternative that is not explicitly expressed in the options is an implicit alternative.

1. Do you like to fly when traveling short distances?
   (Incorrect)

2. Do you like to fly when traveling short distances, or would you rather drive?
   (Correct)
Avoid Implicit Assumptions

- Questions should not be worded so that the answer is dependent upon implicit assumptions about what will happen as a consequence.

1. Are you in favor of a balanced budget?
   (Incorrect)

2. Are you in favor of a balanced budget if it would result in an increase in the personal income tax?
   (Correct)

Choosing Question Wording
Avoid Generalizations and Estimates

“What is the annual per capita expenditure on groceries in your household?” (Incorrect)

“What is the monthly (or weekly) expenditure on groceries in your household?”

and

“How many members are there in your household?” (Correct)
Positive and Negative

- Questions that are in the form of statements should be worded both positively and negatively.

Determining the Order of Questions

Opening Questions
- The opening questions should be interesting, simple, and non-threatening.

Type of Information
- As a general guideline, basic information should be obtained first, followed by classification, and, finally, identification information.

Difficult Questions
- Difficult questions or questions which are sensitive, embarrassing, complex, or dull, should be placed late in the sequence.
Determining the Order of Questions

Effect on Subsequent Questions
- General questions should precede the specific questions (funnel approach).

Q1: “What considerations are important to you in selecting a department store?”

Q2: “In selecting a department store, how important is convenience of location?”

(Correct)

Determining the Order of Questions

Logical Order
The following guidelines should be followed for branching questions:

- The question being branched (the one to which the respondent is being directed) should be placed as close as possible to the question causing the branching.
- The branching questions should be ordered so that the respondents cannot anticipate what additional information will be required.
Flow Chart for Questionnaire Design

Form and Layout

- Divide a questionnaire into several parts.
- The questions in each part should be numbered, particularly when branching questions are used.
- The questionnaires should preferably be precoded.
- The questionnaires themselves should be numbered serially.
Example of a Precoded Questionnaire

Marketeer
A Confidential Survey of Our Subscribers

(Please ignore the numbers alongside the answers. They are only to help us in data processing.)

1. Considering all the times you pick it up, about how much time, in total, do you spend reading or looking through a typical issue of Marketeer?

- Less than 30 minutes.................1
- 30 to 59 minutes.....................2
- 1 hour to 1 hour 29 minutes........3
- 1 1/2 hours to 1 hour 59 minutes...4
- 2 hours to 2 hours 59 minutes.....5
- 3 hours or more........................6

Reproduction of the Questionnaire

- The questionnaire should be reproduced on good-quality paper and have a professional appearance.
- Questionnaires should take the form of a booklet rather than a number of sheets of paper clipped or stapled together.
- Each question should be reproduced on a single page (or double-page spread).
- Vertical response columns should be used for individual questions.
- Grids are useful when there are a number of related questions which use the same set of response categories.
- The tendency to crowd questions together to make the questionnaire look shorter should be avoided.
- Directions or instructions for individual questions should be placed as close to the questions as possible.
Pretesting

Pretesting refers to the testing of the questionnaire on a small sample of respondents to identify and eliminate potential problems.

- A questionnaire should not be used in the field survey without adequate pretesting.
- All aspects of the questionnaire should be tested, including question content, wording, sequence, form and layout, question difficulty, and instructions.
- The respondents for the pretest and for the actual survey should be drawn from the same population.
- Pretests are best done by personal interviews, even if the actual survey is to be conducted by mail, telephone, or electronic means, because interviewers can observe respondents’ reactions and attitudes.

Pretesting

- After the necessary changes have been made, another pretest could be conducted by mail, telephone, or electronic means if those methods are to be used in the actual survey.
- A variety of interviewers should be used for pretests.
- The pretest sample size varies from 15 to 30 respondents for each wave.
- Protocol analysis and debriefing are two commonly used procedures in pretesting.
- Finally, the responses obtained from the pretest should be coded and analyzed.
Step 1. Specify The Information Needed

1. Ensure that the information obtained fully addresses all the components of the problem. Review components of the problem and the approach, particularly the research questions, hypotheses, and specification of information needed.

2. Have a clear idea of the target population.

Step 2. Type of Interviewing Method
Questionnaire Design Checklist

Step 3. Individual Question Content
1. Is the question necessary?
2. Are several questions needed instead of one to obtain the required information in an unambiguous manner?
3. Do not use double-barreled questions.

Step 4. Overcoming Inability and Unwillingness to Answer
1. Is the respondent informed?
2. If respondents are not likely to be informed, filter questions that measure familiarity, product use, and past experience should be asked before questions about the topics themselves.
3. Can the respondent remember?
4. Avoid errors of omission, telescoping, and creation.
5. Questions which do not provide the respondent with cues can underestimate the actual occurrence of an event.
6. Can the respondent articulate?
Questionnaire Design Checklist

Step 4. Overcoming Inability and Unwillingness to Answer

7. Minimize the effort required of the respondents.
8. Is the context in which the questions are asked appropriate?
9. Make the request for information seem legitimate.
10. If the information is sensitive:
   a. Place sensitive topics at the end of the questionnaire.
   b. Preface the question with a statement that the behavior of interest is common.
   c. Ask the question using the third-person technique.
   d. Hide the question in a group of other questions which respondents are willing to answer.
   e. Provide response categories rather than asking for specific figures.
   f. Use randomized techniques, if appropriate.

Questionnaire Design Checklist

Step 5. Choosing Question Structure

1. Open-ended questions are useful in exploratory research and as opening questions.
2. Use structured questions whenever possible.
3. In multiple-choice questions, the response alternatives should include the set of all possible choices and should be mutually exclusive.
4. In a dichotomous question, if a substantial proportion of the respondents can be expected to be neutral, include a neutral alternative.
5. Consider the use of the split ballot technique to reduce order bias in dichotomous and multiple-choice questions.
6. If the response alternatives are numerous, consider using more than one question to reduce the information processing demands on the respondents.
Questionnaire Design Checklist

Step 6. Choosing Question Wording
1. Define the issue in terms of who, what, when, where, why, and way (the six Ws).
2. Use ordinary words. Words should match the vocabulary level of the respondents.
3. Avoid ambiguous words: usually, normally, frequently, often, regularly, occasionally, sometimes, etc.
4. Avoid leading questions that clue the respondent to what the answer should be.
5. Avoid implicit alternatives that are not explicitly expressed in the options.
6. Avoid implicit assumptions.
7. Respondent should not have to make generalizations or compute estimates.
8. Use positive and negative statements.

Questionnaire Design Checklist

Step 7. Determine the Order of Questions
1. The opening questions should be interesting, simple, and non-threatening.
2. Qualifying questions should serve as the opening questions.
3. Basic information should be obtained first, followed by classification, and, finally, identification information.
4. Difficult, sensitive, or complex questions should be placed late in the sequence.
5. General questions should precede the specific questions.
6. Questions should be asked in a logical order.
7. Branching questions should be designed carefully to cover all possible contingencies.
8. The question being branched should be placed as close as possible to the question causing the branching, and (2) the branching questions should be ordered so that the respondents cannot anticipate what additional information will be required.
Step 8. Form and Layout
1. Divide a questionnaire into several parts.
2. Questions in each part should be numbered.
3. The questionnaire should be pre-coded.
4. The questionnaires themselves should be numbered serially.

Step 9. Reproduction of the Questionnaire
1. The questionnaire should have a professional appearance.
2. Booklet format should be used for long questionnaires.
3. Each question should be reproduced on a single page (or double-page spread).
4. Vertical response columns should be used.
5. Grids are useful when there are a number of related questions which use the same set of response categories.
6. The tendency to crowd questions to make the questionnaire look shorter should be avoided.
7. Directions or instructions for individual questions should be placed as close to the questions as possible.
**Step 10. Pretesting**

1. Pretesting should be done always.
2. All aspects of the questionnaire should be tested, including question content, wording, sequence, form and layout, question difficulty, and instructions.
3. The respondents in the pretest should be similar to those who will be included in the actual survey.
4. Begin the pretest by using personal interviews.
5. Pretest should also be conducted by mail or telephone if those methods are to be used in the actual survey.
6. A variety of interviewers should be used for pretests.
7. The pretest sample size is small, varying from 15 to 30 respondents for the initial testing.
8. Use protocol analysis and debriefing to identify problems.
9. After each significant revision of the questionnaire, another pretest should be conducted, using a different sample of respondents.
10. The responses obtained from the pretest should be coded and analyzed.