

**Quantitative Research**

**Survey Research**

**WU**

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UNIVERSITY OF  
ECONOMICS  
AND BUSINESS**

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# Agenda

01

Surveys

02

Constructing  
the Survey

03

Interviews

04

Quiz

# Agenda

01

Surveys

02

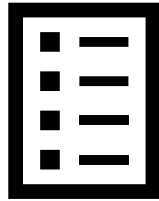
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## QUESTIONNAIRE

- Completed by the respondent
- Mostly short, closed-ended questions



## INTERVIEW

- Completed by the interviewer – based on what the respondent says
- Follows a set script of questions
- Open-ended & closed-ended questions



- **Mail Survey:** send same instrument to many people  
→ Relatively inexpensive, respondent works in private, BUT low response rates



- **Group-Administered Questionnaire:** give instrument to those present  
→ Convenient, high response rate, personal contact, ask for clarification



- **Household Drop-Off Survey:** researcher directly hands out survey  
→ Respondent works in private, personal contact, BUT time-consuming



- **Electronic Survey / E-Survey:**
  - Email survey “pushes” directly to respondent’s computer
  - Web survey “pulls” respondent to website
  - “Non-observation errors”: some households (especially disabled, poor, minority groups) have no access



- **Dual-Media Survey:** allows respondent to select response method  
→ Combines advantages of other methods



- **Personal Interview:** interviewer works directly with respondent  
→ Follow-up questions, time-consuming, resource intensive



- **Focus Group / Group Interview:** interviewer is facilitator of group discussion  
→ 5-10 people discuss focus questions  
→ Deeper consideration of complex issues, BUT constraints from saying opinion in front of others

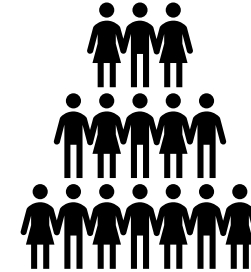


- **Telephone Interview:** interviewer can gather information rapidly  
→ Personal contact, follow-up questions  
→ Used for major public opinion polls, BUT people often not motivated

# Selecting the Survey Method

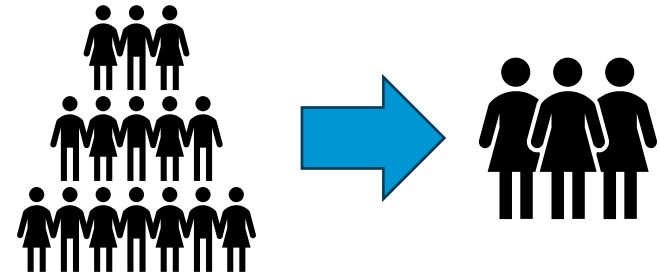
## POPULATION ISSUES

- Can the population units be identified?
- Is the population literate?
- Are there language issues?
- Will the population cooperate?
- What are the geographic restrictions?



## SAMPLING ISSUES

- What data is available?
- Can respondents be found?
- Who is the respondent?
- Can all members of the population be sampled?
- Are response rates likely to be a problem?



# Selecting the Survey Method

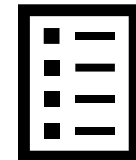
## QUESTION ISSUES

- What types of questions can you ask?
- How complex will the questions be?
- Will filter questions be needed?
- Can question sequence be controlled?
- Will lengthy questions be asked?
- Will long response scales be used?



## CONTENT ISSUES

- Can the respondents be expected to know about the issue?
- Will the respondent need to consult records?





# Selecting the Survey Method

## BIAS ISSUES

- Can social desirability be avoided?
- Can interviewer distortion and subversion be controlled?
- Can false respondents be avoided?



## ADMINISTRATIVE ISSUES

- Can the costs for a specific survey type be covered?
- Do you have the facilities (or access to them) to process and manage your study?
- Have you budgeted enough time to carry out a specific survey type?
- Is the personnel that you need available?



# Selecting the Survey Method

**TABLE 4-1**

**Advantages and Disadvantages of Different Survey Methods**

Issue	Questionnaire				Interview		
	Group	Mail	Email/ Web	Drop- Off	Personal	Phone	Focus Group
Are visual presentations possible?	Yes	Yes	Yes	Yes	Yes	No	Yes
Are long response categories possible?	Yes	Yes	???	Yes	???	No	???
Is privacy a feature?	No	Yes	Yes	No	Yes	???	No
Is the method adaptable on the spot?	No	No	No	No	Yes	Yes	Yes
Are longer open-ended questions feasible?	No	No	No	No	Yes	Yes	Yes
Are reading and writing needed?	???	Yes	Yes	Yes	No	No	No
Can you judge quality of response?	Yes	No	No	???	Yes	???	Yes
Are high response rates likely?	Yes	No	No	Yes	Yes	No	Yes
Can you explain study in person?	Yes	No	No	Yes	Yes	???	Yes
Is it low cost?	Yes	Yes	Yes	No	No	No	No
Are staff and facilities needs low?	Yes	Yes	Yes	No	No	No	No
Does it give access to dispersed samples?	No	Yes	Yes	No	No	No	No
Does respondent have time to formulate answers?	No	Yes	Yes	Yes	No	No	No
Is there personal contact?	Yes	No	No	Yes	Yes	No	Yes
Is a long survey feasible?	No	No	No	No	Yes	No	No
Is there quick turnaround?	No	Yes	Yes	No	No	Yes	???

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# Constructing the Survey



Types of  
Questions



Question  
Content



Response  
Format



Question  
Wording



Question  
Placement



Golden  
Rule



## Structured Questions

- Close-ended questions
- Limited response formats
- Quick, quantitative responses



## Unstructured Questions

- Open-ended questions
- Less limited response formats
- Collection of qualitative data

## DICHOTOMOUS RESPONSE FORMAT

- Question with two possible responses
- Yes/No, True/False, Agree/Disagree

**FIGURE 4-1**

**Dichotomous response formats for a survey question**

Do you believe that the death penalty is ever justified?

\_\_\_ Yes

\_\_\_ No

Please enter your gender:

Male  Female

(Trochim & Donnelly, 2008, p. 101)

## QUESTIONS BASED ON MEASUREMENT LEVEL

- **Nominal response format**

- Number next to response
  - No “meaning”
  - To speed up data entry

**FIGURE 4-2**

**A nominal-level response format for a survey question**

Occupational Class:  
1 = truck driver  
2 = lawyer  
3 = etc.

(Trochim & Donnelly, 2008, p. 101)

- **Ordinal response format**

- To rank preferences

**FIGURE 4-3**

**An ordinal-level response format for a survey question**

Rank the candidates in order of  
preference from best to worst...

\_\_\_ Bob Dole  
\_\_\_ Bill Clinton  
\_\_\_ Newt Gingrich  
\_\_\_ Al Gore

(Trochim & Donnelly, 2008, p. 102)

## QUESTIONS BASED ON MEASUREMENT LEVEL

- Interval-level response format
  - Likert response format: traditional 1 to 5 rating
  - Semantic differential: item is assessed on a set of bipolar adjective pairs

**FIGURE 4-4**

**An interval-level response format for a survey question**

The death penalty is justifiable under some circumstances.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

(Trochim & Donnelly, 2008, p. 102)

**FIGURE 4-5**

**A semantic differential response format for a survey question**

Please state your opinions on national health insurance on the scale below

	very much	some- what	neither	some- what	very much	
interesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	boring
simple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complex
uncaring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	caring
useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	useless

(Trochim & Donnelly, 2008, p. 103)

- Cumulative/Guttman scale: check items that you agree with; higher-ranked items possess all qualities of lower-ranked items

**FIGURE 4-6**

**A cumulative response format for a survey question**

Please check each statement that you agree with:

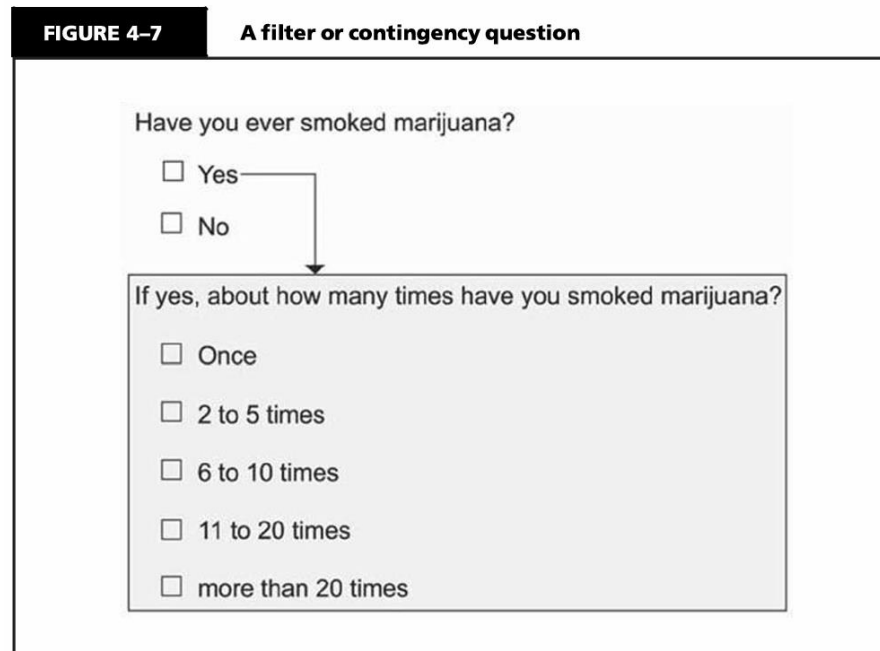
- Are you willing to permit immigrants to live in your country?
- Are you willing to permit immigrants to live in your community?
- Are you willing to permit immigrants to live in your neighborhood?
- Would you be willing to have an immigrant live next door to you?
- Would you let your child marry an immigrant?

(Trochim & Donnelly, 2008, p. 103)



## FILTER QUESTIONS / CONTINGENCY QUESTIONS

- Ask respondent a question to determine if qualified to answer subsequent question



## Is the question necessary and useful?

- Every question needed?
- Level of detail?

## Are several questions needed?

- Avoid double-barreled questions: Ask about only one aspect in one question!

*~~What are your feelings towards African-Americans and Hispanic-Americans?~~*  
→ *What are your feelings towards African-Americans?*  
→ *What are your feelings towards Hispanic-Americans?*

## Do respondents have the needed information?

- Use filter questions if needed!

## Does the question need to be more specific?

- Don't ask questions too generally!

*~~How well did you like the book?~~*

*→ Did you recommend the book to others?*

*→ Did you look for other books by that author?*

## Is the question sufficiently general?

- Avoid being too specific!  
(e.g. ask for TV shows watched over *past year* and not *past week*)

## Is the question biased or loaded?

- Ask for “both sides”, e.g. benefits and disadvantages!
- Avoid being influenced by your own biases!

## Will the respondent answer truthfully?

- Give response brackets (e.g. between 30 and 40 years)
- Use hypothetical projective respondent:

*How much money would you give to charity each year?  
→ How much money would people you know give to  
charity each year?*



## Structured Response Format

- „Easier“ to answer
- Helps researcher accumulate and summarize responses more efficiently

**FIGURE 4–14**

The unstructured response format

Please add any other comments:

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---

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(Trochim & Donnelly, 2008, p. 109)

## Unstructured Response Format

- Written text
- Enough space for reasonable response


# Structured Response Format

## Fill-in-the-Blank

- One of the simplest response formats
- Used for
  - Checking responses in dichotomous questions
  - Preference rankings (place a number on every blank)

**FIGURE 4-8**

**A common fill-in-the-blank question**



Please enter your gender:


\_\_\_ Male

\_\_\_ Female

(Trochim & Donnelly, 2008, p. 106)

**FIGURE 4-9**

**Using blanks for checking a response**



Please enter your preference for the following candidates where '1' = your first choice, '2' = your second choice, and so on.

- \_\_\_ Robert Dole
- \_\_\_ Colin Powell
- \_\_\_ Bill Clinton
- \_\_\_ Al Gore

**FIGURE 4-10**

**A fill-in-the-blank test item**

Name: \_\_\_\_\_

(Trochim & Donnelly, 2008, p. 107)

# Structured Response Format

## Check the Answer

- Place a check next to the response(s)
- Check-box format
- *Multi-option variable*: treat each option as a separate variable (code each variable as either 0 or 1 when you enter the data)

When using a *checklist*:

- Are all of the alternatives covered?
- Is the list of reasonable length (not too long)?
- *Allow respondent to write down other options that apply!*

**How did you hear about this position?**

<input type="checkbox"/> Newspaper	<input type="checkbox"/> Company Employee	<input type="checkbox"/> Professional Publication
<input type="checkbox"/> Job Fair	<input type="checkbox"/> Placement Office	<input checked="" type="checkbox"/> Website
<input type="checkbox"/> Other _____		

Source: <https://docs.devexpress.com/OfficeFileAPI/120712/word-processing-document-api/examples/document-elements/how-to-insert-a-checkbox>

# Structured Response Format

## Circle the Answer

- Circle an item to indicate the response
- *Single-option variable*: select only one of the options (code single variable from 1 to 5)

**FIGURE 4-12** A circle-the-answer response format

Capital punishment is the best way to deal with convicted murderers.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

(Trochim & Donnelly, 2008, p. 108)

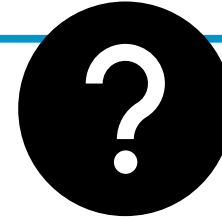
**FIGURE 4-13** An option button response format on the Web.

Capital punishment is the best way to deal with convicted murderers.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

(Trochim & Donnelly, 2008, p. 108)





## Can the question be misunderstood?

- State clearly what you want!

## What assumptions does the question make?

- Consider how question will appear from the respondent's point of view.
- Use filter questions first!

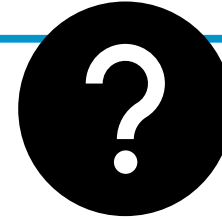
## Is the time frame specified?

- Time-related questions: use words *will*, *could*, *might*, *may*
- Specify the time frame precisely.

## How personal is the wording?

- Fairly detached, objective viewpoint
- Be sure that questions are at an appropriate level!

- *Are working conditions* satisfactory or not satisfactory in your organization?
- *Do you feel* that working conditions are satisfactory or not satisfactory in your organization?
- *Are you personally* satisfied with working conditions in your organization?



## Is the wording too direct?

- May be threatening or disturbing for respondent

## Other wording issues

- Avoid difficult and unclear terminology.
- Make each alternative clear.
- Wording should not be loaded.
- Wording should not steer respondent to particular response.

**= the order of questions**

## **Potential issues:**

- Answers may be influenced by prior questions.
- Questions may come too early or too late to raise interest.
- Questions may not receive sufficient attention because of the questions around them.

## **Opening questions**

- First impression is important!
- Determine the tone for the survey.
- Put your respondent at ease.
- Easy to answer
- Simple descriptive questions

## **Sensitive questions**

- Difficult or uncomfortable to answer
- Develop some trust beforehand.
- Use transition sentences between sections.
- Consider ethical aspects.

## **Guidelines for question sequencing**

- Start with easy, non-threatening questions.
- Put difficult questions near the end.
- Ask about one topic at a time!
- When switching topics, use a transition.

# Golden Rule of Survey Research

Do unto your respondents as you would  
have them do unto you!

**Be thankful for participation!**

**Keep survey as short as possible!**

**Be sensitive to the needs and feelings of the respondent!**

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## INTERVIEWS

- Among most challenging & rewarding forms of measurement
- Require personal sensitivity and adaptability of the interviewer
- Typically use type of questionnaire instrument as script
- Structured (closed-ended) & unstructured (open-ended) questions



## Complex and multifaceted role

- Locate and enlist cooperation of respondents.
- Motivate respondents to do a good job.
- Clarify any confusion/concerns.
- Observe quality of responses.
- Conduct a good interview.



## Training the interviewers: Interviewers should ...

- ... know about the study and its sponsor.
- ... be able to explain sampling logic & walk through the interview.
- ... know about interview biases.
- ... rehearse the interview.

# Conducting the Interview

## Opening remarks

- Get respondent's attention and sell the idea of participating in study.
- Introduction: essential information in 20-30 sec.
- Explain the study & its purpose, BUT keep it short!

## Asking the questions

- Use questionnaire carefully, but informally.  
→ Adapt to the needs of the setting!
- Ask questions exactly as written: Don't alter words!
- Follow the order given
- Ask every question
- Don't finish sentences for the respondent.

## Obtaining adequate responses - Probes

*brief answer → more thoughtful, thorough response*

- Silent probe: respondents are uncomfortable with silence → pause & wait
- Overt encouragement: encourage respondent directly → “okay”, “uh-huh”
- Elaboration: ask for elaboration → “Is there anything you would like to add?”
- Ask for clarification: “Could you tell me more about what you said earlier about ...”
- Reflection: repeat previous answer → “What I’m hearing you say is that ...”

## Recording the response

- Record responses immediately: pen & paper or recording equipment
- Include all probes (that you used)

## Concluding the interview

- Thank respondent!
- Take your time for ending the conversation politely.
- Write down notes (immediately after leaving): comments & observations

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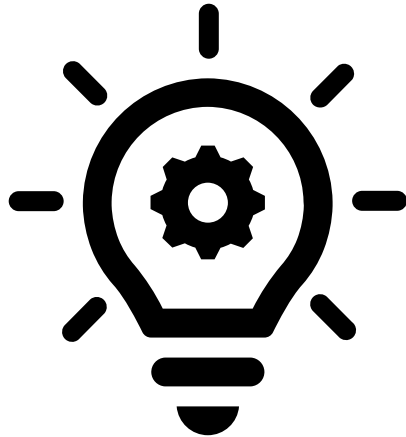
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# Quiz – Survey Research



- Open [www.joinmyquiz.com](http://www.joinmyquiz.com)
- Insert the code that appears on the screen
- Or scan the QR code that appears on the screen
- Enter a nickname and click “Start”

## SURVEYS

- **Questionnaire vs. Interview**
- Selecting **survey method**:  
Keep population, sampling, question, content, bias and administrative issues in mind!

## CONSTRUCTING THE SURVEY

- Think about **type of question & response format!**
- Formulate questions **clearly**, sufficiently **specific & general** and **without biases** and assumptions!
- Start with **easy questions!**
- Put **difficult questions** near the end!
- **Do unto your respondents as you would have them do unto you!**

## INTERVIEW

- Requires **personal sensitivity** and adaptability of the interviewer
- Interview **opening**: Get attention to the topic and explain the study.
- Ask questions exactly **as written** & in the **correct order!**
- Use **probes** to obtain adequate responses!
- **Record** the response **immediately**: pen & paper or recording equipment
- **Conclude** interview: thank respondent, close conversation politely, write down observations

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