

Questionnaire



Questionnaire

- a set of questions organized in a certain way to get the required information from respondents
- an instrument for delivery of questions to respondents and getting back their answers
- a form for precise and complete recording of obtained information



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1. **Process of questionnaire design**
2. Variables
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4. General „get up“

1. Process of a questionnaire design

- a) Specification of the **information needed** in researchable format
- b) Selection of **interview method**
- c) Determination of question **composition**
- d) Determination of individual question **content**
- e) Developing question **order, form and layout**
- f) **Pilot testing** of the questionnaire

1. Process of a questionnaire design

a) Specification of the information needed in researchable format

- problem definition, objectives
- areas related to the required information
- conceptual framework of questions
(*eg. concepts – satisfaction, service quality, brand image, brand equity...*)



1. Process of a questionnaire design
 - b) Selection of interview method

Personal x mail x telephone x internet

- personal - interaction, feedback => complex, long questions, visual elements
- telephone - short, little complexity, few possible answers
- internet - simple questions

- influence also on the scaling

1. Process of a questionnaire design
 - c) Determination of question composition

Open-ended

- primarily used in exploratory research
- +:
 - to express attitude, opinions
 - rich insight
- - :
 - if recorded by writing, based on the skills of the interviewer
 - creating coding and interpretation

1. Process of a questionnaire design
 - c) Determination of question composition

Open-ended

- types:

- free

Why have you bought a car?

- association

What do you imagine when you hear „Philips“?

- unfinished sentences

The most important criterion when buying a car is

1. Process of a questionnaire design

c) Determination of question composition

Closed

- pre-defined format of answers
- +:
 - amount of thinking and effort reduced, easy-to-answer
 - interviewer bias eliminated
 - quick coding, easier to analyze
- -:
 - lack of depth and variety
 - the list of answers may not cover all possible answers
 - answers may not truly reflect respondents' opinions

1. Process of a questionnaire design
 - c) Determination of question composition

Closed

- types:
 - dichotomous - two alternatives: *Do you own a car?* ☐ Yes ☐ No
 - trichotomous - if one alternative is added (e.g. „*I don't know*“)
 - multiple choice - more alternatives to choose from
 - scale questions
 - verbal, graphic, numerical
 - nominal, ordinal, interval, ratio
 - paired comparison, rank order, constant sum scale, Likert scale, semantic differential

1. Process of a questionnaire design
 - c) Determination of question composition

Multiple choice questions

What brand of a car do you own?

- | | |
|--|-----------------------------------|
| <input type="checkbox"/> Škoda | <input type="checkbox"/> Fiat |
| <input type="checkbox"/> Volkswagen | <input type="checkbox"/> Mercedes |
| <input type="checkbox"/> Audi | <input type="checkbox"/> BMW |
| <input type="checkbox"/> Mazda | <input type="checkbox"/> Toyota |
| <input type="checkbox"/> Other, please specify | |

1. Process of a questionnaire design

c) Determination of question composition

Multiple choice questions based on selection - only one answer from the offered alternatives

Where is the shop located?

1. *Main street*
2. *Secondary street*
3. *Out of the town centre*
4. *Out of the town centre – housing area (block of flats)*
5. *In town shopping centre*
6. *Edge of the town shopping centre*

How do you perceive the price?

- | | | | | |
|----------------|-------------------------|-------------------|------------------------|---------------|
| 1. <i>High</i> | 2. <i>Rather higher</i> | 3. <i>Average</i> | 4. <i>Rather lower</i> | 5. <i>Low</i> |
|----------------|-------------------------|-------------------|------------------------|---------------|

1. Process of a questionnaire design

c) Determination of question composition

Multichoice questions based on specification - allow multiple responses

Where do you search for information on employee's further education?

Please mark all sources of information you use.

	Source of information on possibilities of employee education	
2.1	Internet (web pages of schools and institutions offering education)	<input type="checkbox"/>
2.2	Postal offer	<input type="checkbox"/>
2.3	Specialized portals of education with offers of various institutions	<input type="checkbox"/>
2.4	References	<input type="checkbox"/>
2.5	Personal experience	<input type="checkbox"/>
2.6	We do not search	<input type="checkbox"/>
2.7	Other, please specify:	<input type="checkbox"/>

1. Process of a questionnaire design

d) Determination of individual question content

- be clear and precise

How many cups of coffee do you drink in a typical workday? ____ (write in number)

- responses mutually exclusive and exhaustive

Which season do you prefer for your main holiday – spring, summer, autumn, winter?

- natural and familiar language
- ask one question at a time
- provide appropriate time referents (*no recently, often!!!*)
- balanced scales
- complete sentences
- distinguish undecided from neutral

1. Process of a questionnaire design

d) Determination of individual question content

OFTEN MISTAKES

- **double-barrelled questions**

„Do you think you will purchase this product for low price and high quality?“

„Are you happy in your family and at work?“

- **wrong possible answers**

„What is your hair colour?“ Brown or black?

- **all in one question**

„Please name all jobs you have had during the last 5 years, your positions and functions, your salary and reasons why you left.“

- **vague quantifiers**

„Do you go often dancing?“

- **general questions**

„What do you think about the Middle East?“

- **jargon, professional slang**

„Do you think that the high inflation rate was caused by the national bank influencing the currency exchange rate towards depreciation?“

- **leading questions**

„Do you think immigration is hurting the local economy and making locals lose their jobs?“

„Why are you happy as an employee of our company?“

1. Process of a questionnaire design

d) Determination of individual question content

OFTEN MISTAKES

- **negative questions**

„Don't you want to go to Bulgaria this year?“

- **questions about the opinion of someone else**

„Do you think that your parents were satisfied with the new shopping centre?“

- **examining questions**

„Do you know what is an engagement and reach when talking about social networks?“

- **asking respondents to make unnecessary calculations**

„What is the average milk consumption per person in your family per month?“

- **unequal comparisons**

„Do you prefer a holiday in Liberec, Prag, Italy or Cuba?“

- **unequal scales**

„How satisfied are you with your job?“ very satisfied – rather satisfied – satisfied – very dissatisfied

- **questions for that respondent doesn't have a ready-made answer**

„What did you eat Wednesday two weeks ago?“

- **socially sensitive or personally embarrassing questions**

„Are you able to run 3,000 m?“

„Do you read regularly books?“

1. Process of a questionnaire design

e) Developing question order, form and layout

- three main parts:
 - forward and opening questions
 - specific information questions
 - generic information questions
 - classification questions => classification data
 - identification questions => identification data
- } data about a subject of a research (hard and soft data)
- clear order, symmetry

1. Process of a questionnaire design
 - e) Developing question order, form and layout

What variables should be included in the classification data if the respondent is

a) an individual

b) a company

?

1. Process of a questionnaire design

f) Pilot testing of the questionnaire

- coding
- pilot testing
- amount of thinking and effort reduced
- interviewer bias eliminated

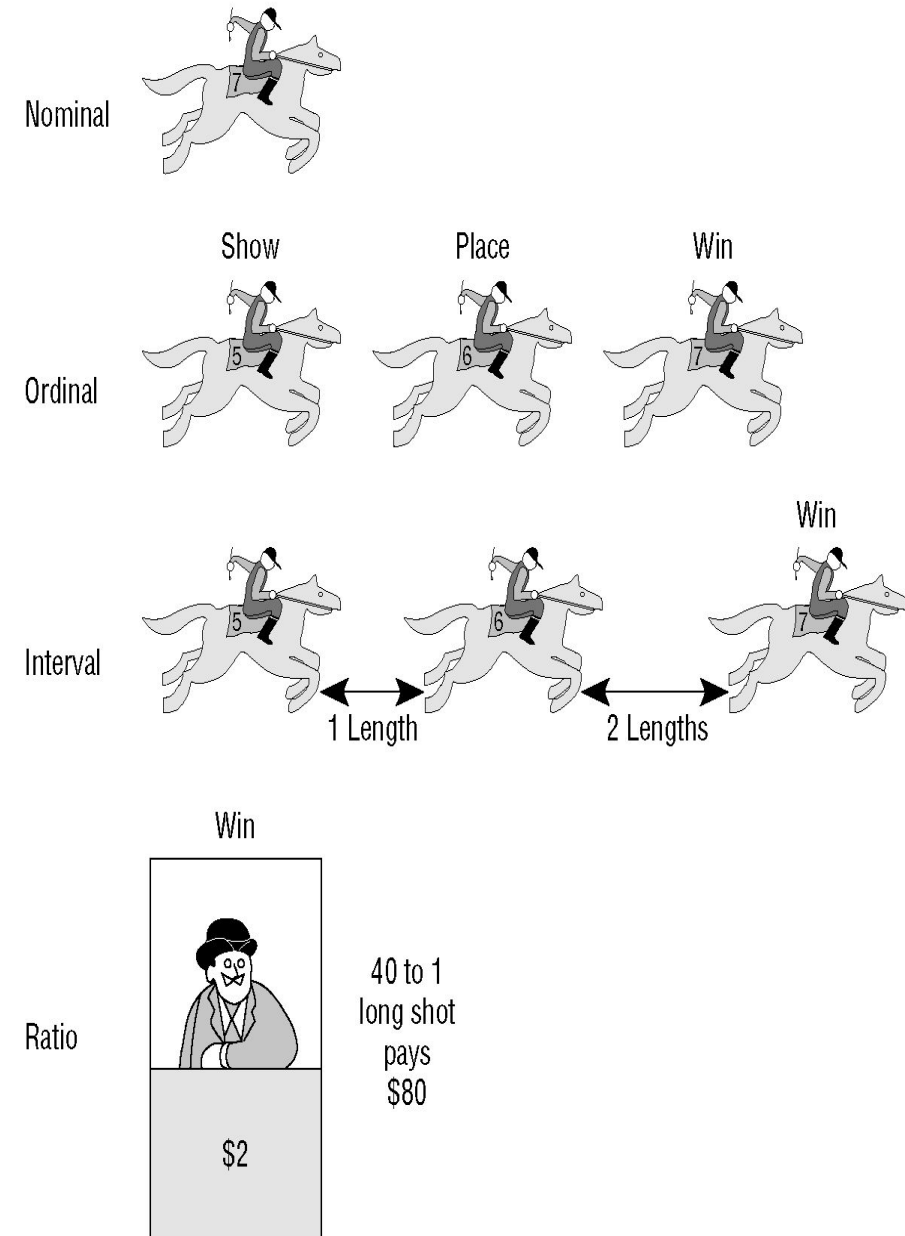
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1. Process of questionnaire design
2. **Variables**
3. Scales
4. General „get up“

2. Variables

- nominal
- ordinal
- interval
- ratio

=> provide different information



2. Variables

Nominal

- labelling scheme, categories
- examples:

zip code of residence

employment status

marital status

gender

race

religion

2. Variables

Ordinal

- hierarchical order, no distance
- *examples: level of education, level of customer satisfaction (satisfied – neutral – dissatisfied), most preferred to less preferred*

2. Variables

Interval

- order and distance
- example:
 - What is your age group?*
 - *younger than 20 years*
 - *21 – 30 years*
 - *31 – 40 years*
 - *41 – 50 years*
 - *51 – 60 years*
 - *more than 61 years*

2. Variables

Ratio

- order, distance and difference
- examples:
 - *Market share*
 - *Sales (units and dollars)*
 - *Income*
 - *Number of salespersons per territory*
 - *Number of full-time employed members of the household*
 - *Number of children in the household*

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3. Scales

Different ways to ask the same question can yield different responses.

Examples of rating scale configurations

How likely would you be to buy Grandma's Peach Cobbler?

1. Very likely _____ Very unlikely
2. Very likely 1 2 3 4 5 Very unlikely
3. ☐ Very likely
☐
☐
☐
☐ Very unlikely
4. _____
Very likely Likely Uncertain Unlikely Very unlikely
5. Very likely | _____ | Very unlikely
6. Very likely Very unlikely

3. Scales - rating scales - types

- verbal

almost always - sometimes - every once in a while - rarely - never

very interested- somewhat interested- neutral - not very interested - not at all interested

very much - somewhat - neutral - not really - not at all

very much like me - somewhat like me - neutral - not really like me - not at all like me

very happy - somewhat happy - neutral - not very happy - not at all happy

- graphic



- numerical

Evaluate this package using a scale from 1 to 10 - 1=the best, 10=the worst.

3. Scales

Scaling techniques I.

- paired comparison
 - e.g. product testing Coca-Cola
- rank order
 - various objects to rank, the most preferred, the 2nd most preferred...
- constant sum
 - to assign a constant sum to a set of objects
- rating scales
 - single concept

Example: constant sum

What percent of your sales come from the following?

Enter only whole numbers. No decimal point or percent sign.

Mail Order %

Phone Order %

Walk-In %

Other %

Total 0 (total must equal 100)

Continue

Continue with the next survey item

Example: Rating scale

Rating Scale to Measure Relative Importance of Choice Attributes

	<i>Not Important</i>	<i>Slightly Important</i>	<i>Important</i>	<i>Very Important</i>	<i>Extremely Important</i>
Fair prices	NI	SI	I	VI	EI
Neat	NI	SI	I	VI	EI
Friendly personnel	NI	SI	I	VI	EI
Convenient location	NI	SI	I	VI	EI

3. Scales

Scaling techniques II.

- Likert scale

- series of statements about the object's degree of **(dis)agreement**
- measures attitudes
 - strongly agree - agree - uncertain - disagree - strongly disagree
 - strongly agree - agree - agree somewhat - undecided - disagree somewhat - disagree - strongly disagree

Please cross the number that represents how you perceive advertising.	Strongly agree					Strongly disagree				
	1	2	3	4	5	1	2	3	4	5
Advertising is an important source of information for consumers.	1	2	3	4	5	1	2	3	4	5
Advertising makes an important contribution to modern living standard.	1	2	3	4	5	1	2	3	4	5
Advertising is socially undesirable and a wasteful use of resources.	1	2	3	4	5	1	2	3	4	5
Advertising increases the prices we have to pay for products.	1	2	3	4	5	1	2	3	4	5

Likert scale

A Likert Scale to Measure Consumer Beliefs About Duncans Department Store

<i>Item</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Agree a Little</i>	<i>Disagree a Little</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
Duncans Department Store has lower prices than competitors'.	SA	A	AL	DL	D	SD
Merchandise displays at Duncans Department Store are messy.	SA	A	AL	DL	D	SD
Clerks at Duncans Department Store are not very friendly.	SA	A	AL	DL	D	SD
The downtown Duncans Department Store is a convenient location.	SA	A	AL	DL	D	SD

Likert scale

Likert Scale

Please indicate by checking (X) the appropriate category the extent to which you agree with the following statements about Kmart.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. The store has an inviting atmosphere.	_____	_____	_____	_____	_____
2. The clerks are knowledgeable.	_____	_____	_____	_____	_____
3. The store's checkout lines move slowly.	_____	_____	_____	_____	_____
4. The store offers a wide product assortment.	_____	_____	_____	_____	_____
5. The store has an unattractive interior.	_____	_____	_____	_____	_____
6. The clerks are unfriendly.	_____	_____	_____	_____	_____

3. Scales

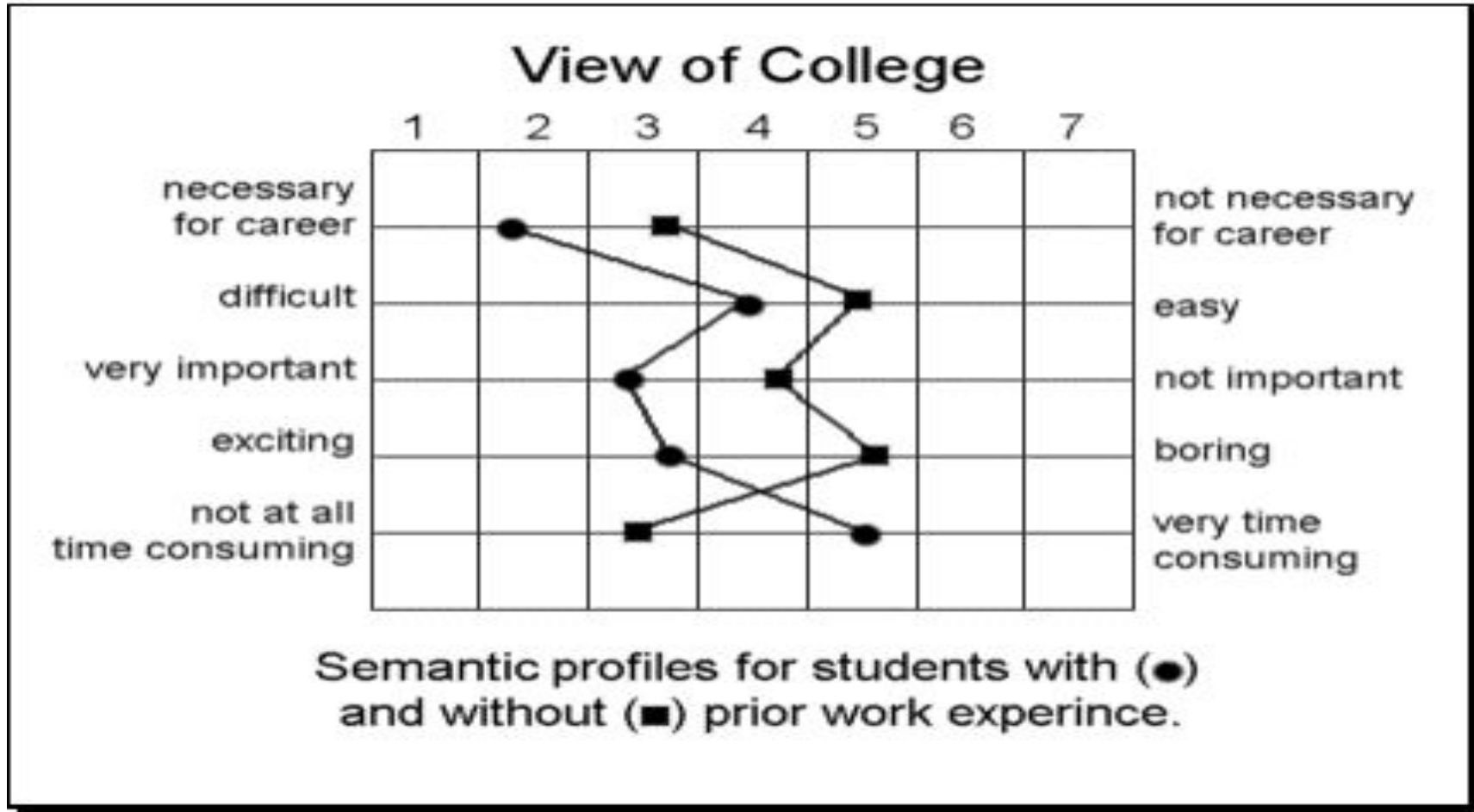
Scaling techniques III.

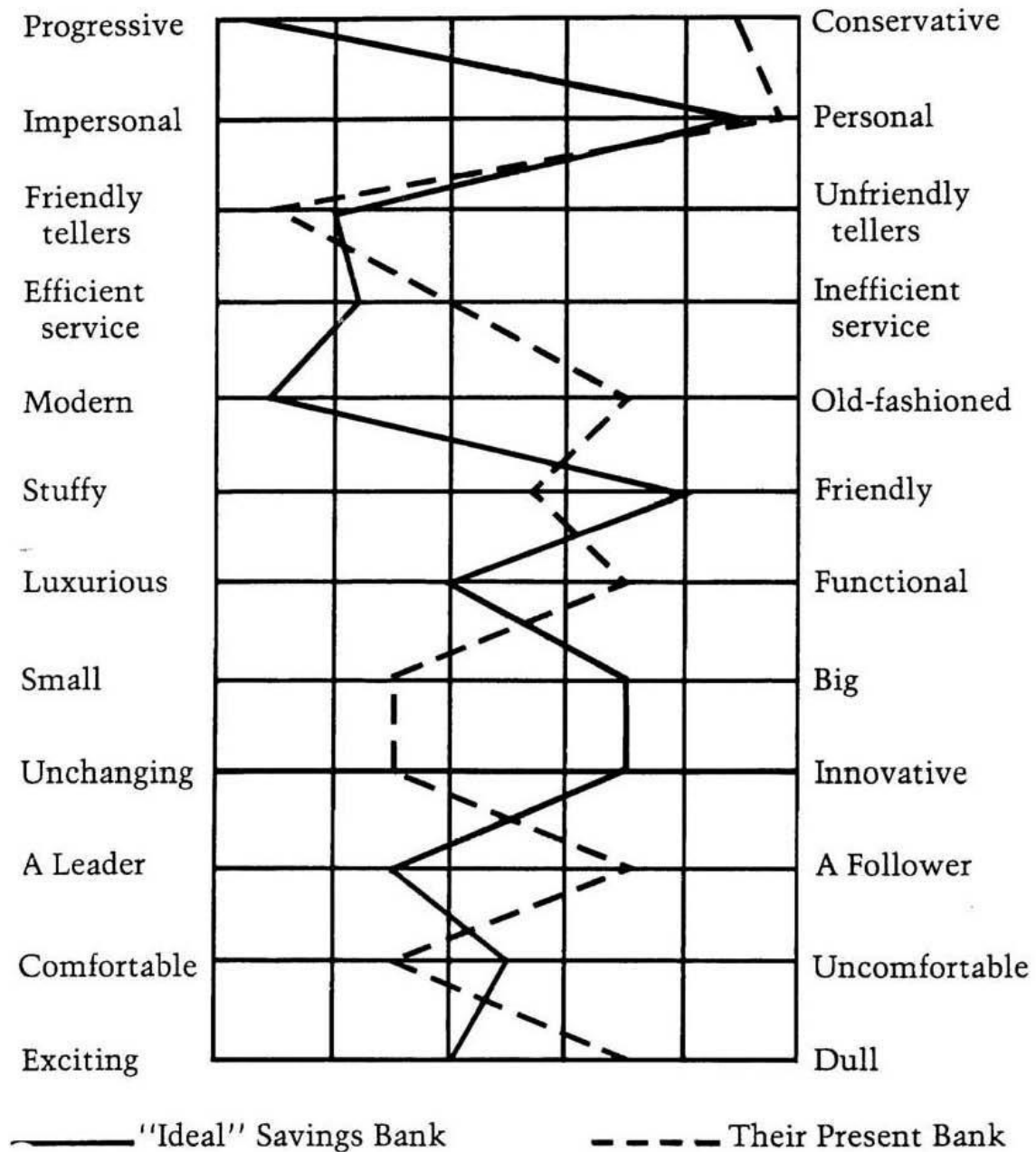
- Semantic differential

- bi-polar scale with bi-polar adjectives/phrases (active-passive, false-true, slow-fast)
- to quantify the intensity and content of attitudes
- many applications: people, products, events

How do you view the college?		
Necessary for career	1 2 3 4 5 6 7	Not necessary for career
Difficult	1 2 3 4 5 6 7	Easy
Very important	1 2 3 4 5 6 7	Not important
Exciting	1 2 3 4 5 6 7	Boring
Not at all time consuming	1 2 3 4 5 6 7	Very time consuming

Example: Semantic differential - output





Example: Semantic differential

6. Please rate the Package Image

[illegible]

Semantic differential

Semantic Differential Scale

Going to Florida on spring break is:

important _____ : _____ : _____ : _____ : _____ : _____ : _____ unimportant

worthless _____ : _____ : _____ : _____ : _____ : _____ : _____ valuable

good _____ : _____ : _____ : _____ : _____ : _____ : _____ bad

rewarding _____ : _____ : _____ : _____ : _____ : _____ : _____ punishing

useful _____ : _____ : _____ : _____ : _____ : _____ : _____ useless

pessimistic _____ : _____ : _____ : _____ : _____ : _____ : _____ optimistic

hard _____ : _____ : _____ : _____ : _____ : _____ : _____ soft

boring _____ interesting

active _____ : _____ : _____ : _____ : _____ : _____ : _____ passive

compulsory _____ : _____ : _____ : _____ : _____ : _____ : _____ voluntary

serious _____ humorous

pleasant _____ : _____ : _____ : _____ : _____ : _____ : _____ unpleasant

Selected scales

Quality				
Excellent	Good	Fair	Poor	
Very good	Fairly good	Neither good nor bad	Not very good	Not good at all
Well above average	Above average	Average	Below average	Well below average
Importance				
Very important	Fairly important	Neutral	Not so important	Not at all important
Interest				
Very interested		Somewhat interested		Not very interested
Satisfaction				
Completely satisfied	Somewhat satisfied	Neither satisfied nor dissatisfied	Somewhat dissatisfied	Completely dissatisfied
Very satisfied	Quite satisfied	Somewhat satisfied	Not at all satisfied	
Frequency				
All of the time	Very often	Often	Sometimes	Hardly ever
Very often	Often	Sometimes	Rarely	Never
All of the time	Most of the time	Some of the time	Just now and then	
Truth				
Very true	Somewhat true	Not very true	Not at all true	
Definitely yes	Probably yes	Probably no	Definitely no	
Uniqueness				
Very different	Somewhat different	Slightly different	Not at all different	
Extremely unique	Very unique	Somewhat unique	Slightly unique	Not at all unique

3. Scales - appropriateness

- length
- even or odd
- labelled or unlabelled

Table of content

1. Process of questionnaire design
2. Variables
3. Scales
4. **General „get up“**

4. General „get up“

- appearance of questionnaire
- length of questionnaire
- introduction to respondents
- instruction for completion
- cover letter

Bad layout

Start Here

- 1) During the past 30 days, how often did pain interfere with your daily activities such as your job, working around the home, or social activities?

- | | | |
|----------------------------|-------------------------|---------------------|
| 1) All of most of the time | 3) A little of the time | 4) None of the time |
| 2) Some of the time | | |

2. During the past 30 days, how often have you had pain?

- 1) Every day
- 2) Between 4 and 6 days a week
- 3) Between 1 and 3 days a week
- 4) Less than once a week
- 5) Never

- 3) Did you feel any pain last week?

- ☐ yes
☐ no

- 4) Do you wear eye glasses?
Virtually all of the time.....1
Usually just to read.....2
Rarely.....3
Never.....4

- 5 Is it difficult for you to walk?

___always ___sometimes ___occasionally ___never

6. What is the furthest you could probably walk without sitting down and resting?

△ once across the room and back; △ several times across the room and back; △ up a flight of stairs; △ up several flights of stairs; △ further

7. When was the last time you were in a doctor's office?

- ☐ this week
☐ last week
☐ before that

8. On average, how often do you visit a doctor's office?

- a every week
b 2-3 times per month
C once a month
D less than once a month

Better layout

START HERE

- | | |
|--|---|
| <p>① During the past 30 days, how often did pain interfere with your daily activities such as your job, working around the home, or social activities?</p> <ul style="list-style-type: none"><input type="checkbox"/> All of the time<input type="checkbox"/> Some of the time<input type="checkbox"/> A little of the time<input type="checkbox"/> None of the time <p>② During the past 30 days, how often have you had pain?</p> <ul style="list-style-type: none"><input type="checkbox"/> Every day<input type="checkbox"/> Between 4 and 6 days a week<input type="checkbox"/> Between 1 and 3 days a week<input type="checkbox"/> Less than once a week<input type="checkbox"/> Never <p>③ Did you feel any pain last week?</p> <ul style="list-style-type: none"><input type="checkbox"/> Yes<input type="checkbox"/> No <p>④ Do you wear eye glasses?</p> <ul style="list-style-type: none"><input type="checkbox"/> Virtually all of the time<input type="checkbox"/> Usually just to read<input type="checkbox"/> Rarely<input type="checkbox"/> Never | <p>⑤ Is it difficult for you to walk?</p> <ul style="list-style-type: none"><input type="checkbox"/> Always<input type="checkbox"/> Sometimes<input type="checkbox"/> Occasionally<input type="checkbox"/> Never <p>⑥ What is the furthest you could probably walk without sitting down and resting?</p> <ul style="list-style-type: none"><input type="checkbox"/> Once across the room and back<input type="checkbox"/> Several times across the room and back<input type="checkbox"/> Up a flight of stairs<input type="checkbox"/> Up several flights of stairs<input type="checkbox"/> Further <p>⑦ When was the last time you were in a doctor's office?</p> <ul style="list-style-type: none"><input type="checkbox"/> This week<input type="checkbox"/> Last week<input type="checkbox"/> Before that <p>⑧ On average how often do you visit a doctor's office?</p> <ul style="list-style-type: none"><input type="checkbox"/> Every week<input type="checkbox"/> 2-3 times per month<input type="checkbox"/> Once a month<input type="checkbox"/> Less than once a month |
|--|---|

Cover letter appeals

Social utility	"Your assistance is needed!! Your attitudes and opinions can provide information that contributes to understanding how consumers can be better served by local retail shopping facilities. . . . Your cooperation is truly appreciated."
Help-the-sponsor	"We need your assistance!! Your attitudes and opinions are very important to our successful completion of this study. . . . We truly appreciate your cooperation."
Egoistic	"Your opinions are important!! It's important for you to express your opinion so Madison's retailers will know the type of products and shopping facilities you would like to have available. . . . Thanks for expressing your opinions."
Combined appeal	"Your opinions are important and useful!! Your attitudes and opinions are important for three reasons: (1) they can provide information that leads to an understanding of how consumers can be better served by local retail shopping facilities; (2) they will enable Madison's retailers to know the types of products and shopping facilities you would like to have available; and (3) they will help us successfully complete this study. . . . Thank you for your cooperation."

Cover letter

*Official
letterhead*

WASHINGTON STATE UNIVERSITY
PULLMAN, WASHINGTON 99968
DEPARTMENT OF RURAL SOCIOLOGY
ROOM 23, Wilman Hall

Date mailed

April 19, 20XX

*Inside address in
matching type*

Oliver Jones
2190 Fontane Road
Spokane, Washington 99467

*What study is
about; its
social usefulness*

Bills have been introduced in Congress and our State Legislature to encourage the growth of rural and small town areas and slow down that of large cities. These bills could greatly affect the quality of life provided in both rural and urban places. However, no one really knows in what kinds of communities people like you want to live or what is thought about these proposed programs.

*Why recipient
is important
(and, if needed,
who should complete
the questionnaire)*

Your household is one of a small number in which people are being asked to give their opinion on these matters. It was drawn in a random sample of the entire state. In order that the results will truly represent the thinking of the people of Washington, it is important that each questionnaire be completed and returned. It is also important that we have about the same number of men and women participating in this study. Thus, we would like the questionnaire for your household to be completed by an adult female. If none is present, then it should be completed by an adult male.

*Promise of
confidentiality;
explanation of
identification
number*

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that we may check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

Usefulness of study

The results of this research will be made available to officials and representatives in our state's government, members of Congress, and all interested citizens. You may receive a summary of results by writing "copy of results requested" on the back of the returns envelope, and printing your name and address below it. Please do not put this information on your questionnaire itself.

*Token reward
for participation*

*What to do if
questions arise*

I would be most happy to answer any questions you might have. Please write or call. The telephone number is (509) 335-8623.

Appreciation

Thank you for your assistance.

*Pressed blue ballpoint
signature*

Sincerely,

Title

Don A. Dillman
Project Director