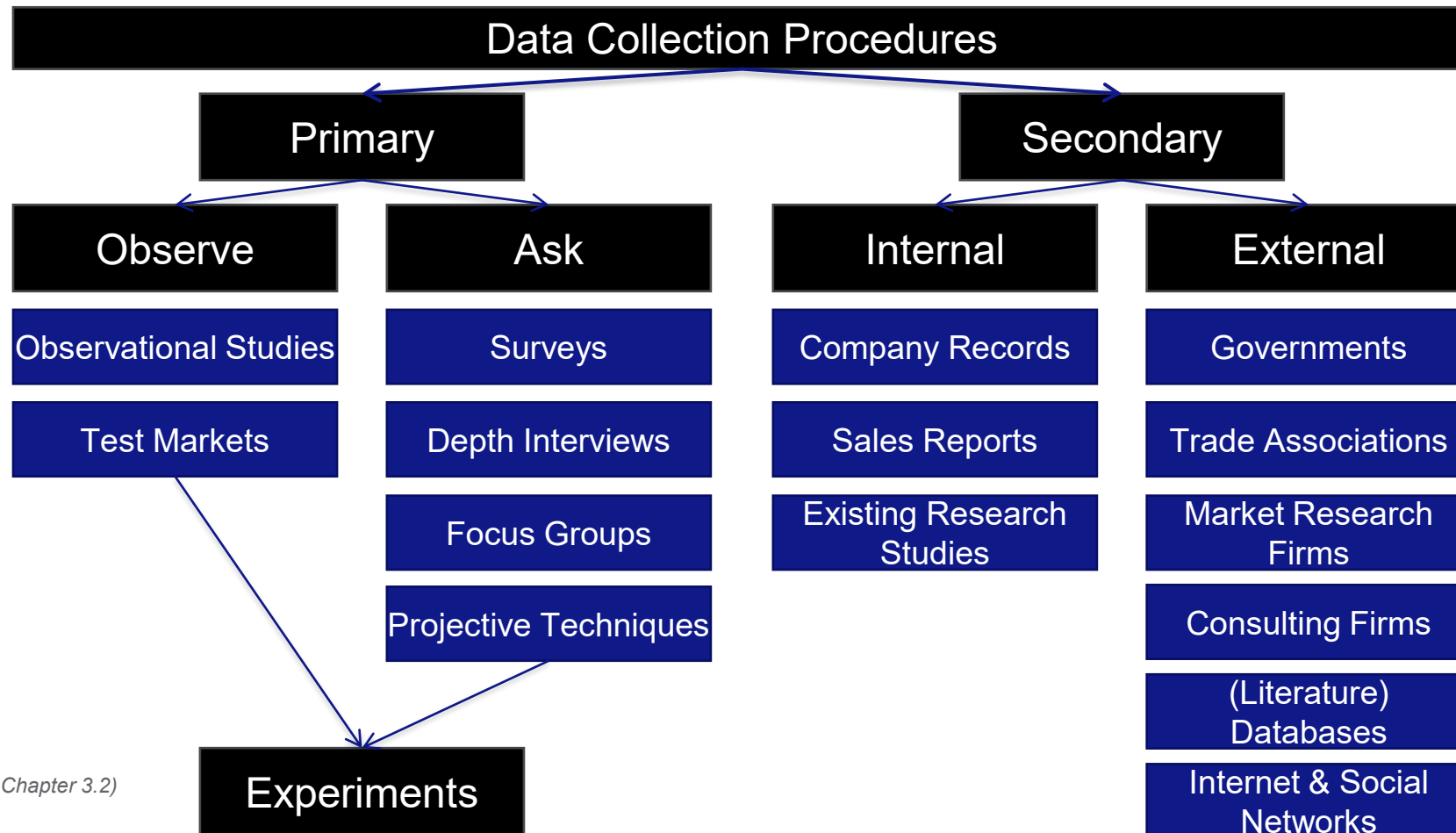


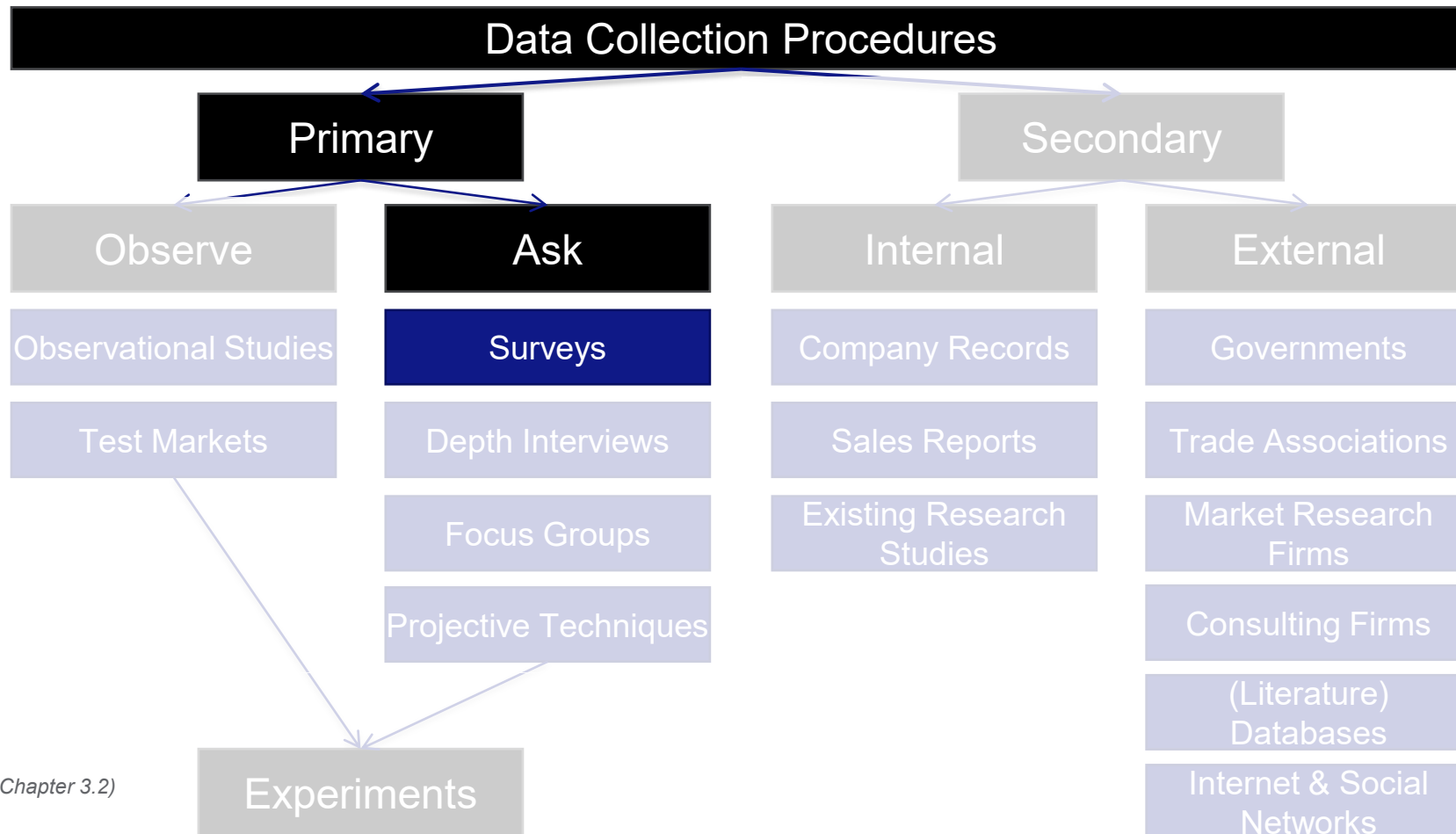
3.1 Types of Data

Primary and Secondary Data Sources



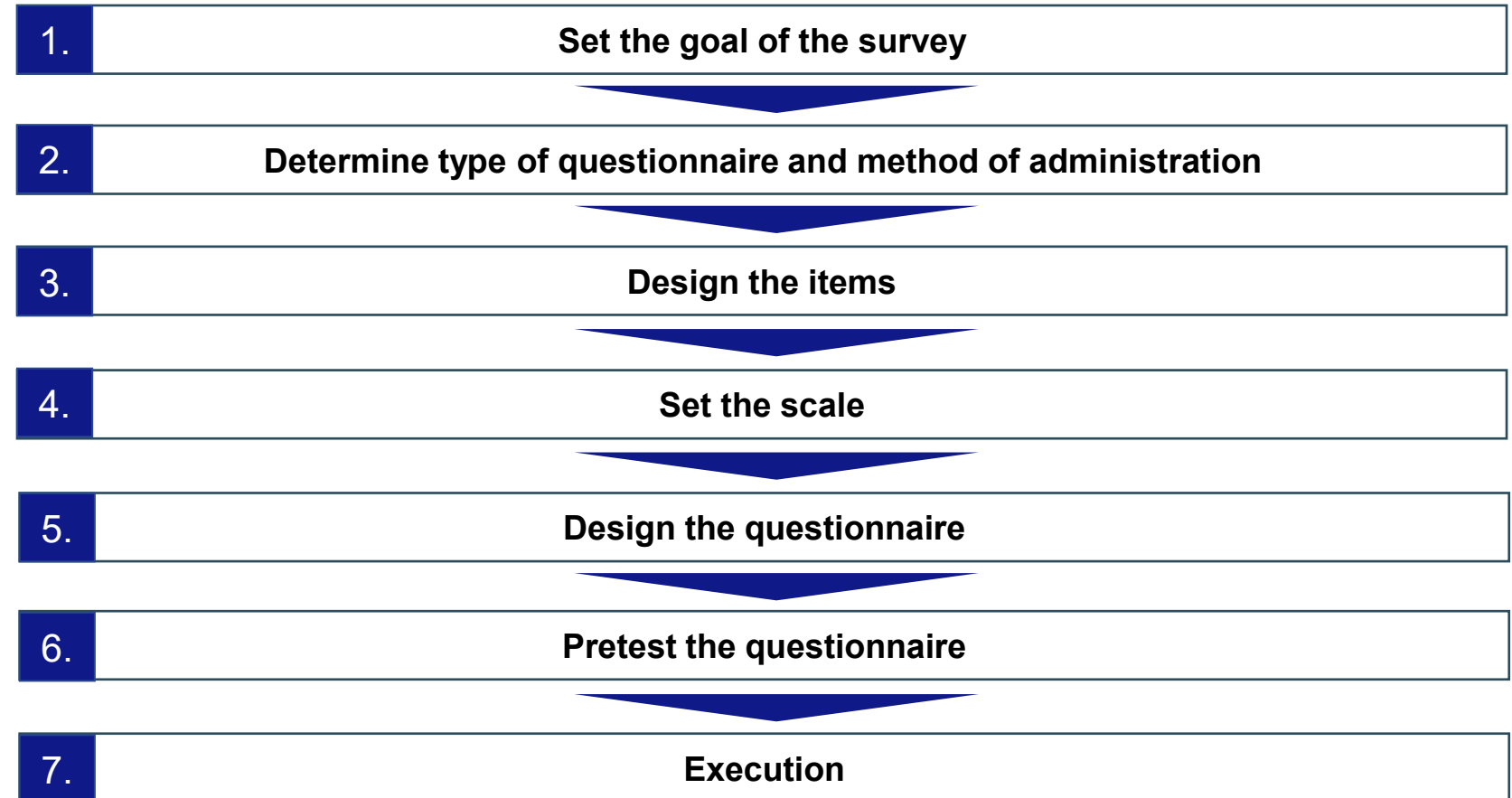
Source: Sarstedt & Mooi (2019, Chapter 3.2)

3.2 Primary Data Surveys



Source: Sarstedt & Mooi (2019, Chapter 3.2)

3.2 Primary Data Designing Surveys



Source: Sarstedt & Mooi (2019, Chap. 4.4.2)

3.2 Primary Data

Designing Surveys: 1. Set the Goal of the Survey






























Key aspects to consider when setting the goal of the survey:

- Statistical analyses required for the study
- Data required to do the analyses
 - Sample size
 - Number of variables
 - Measurement scales
 - ...

Always consider the type of information or advice you want to give based on the survey!

3.2 Primary Data

Designing Questionnaires: 2. Determine Type of Questionnaire and Method of Administration

	Face-to-face	Web surveys	Phone (CATI)	Mail surveys
Costs				
Max. Length				
Interviewer Bias				
Sample Bias	 - 			
Open Answers				
Complexity (Filter)				
Flexibility of methods				

Researchers' view:



3.2 Primary Data

Designing Questionnaires: 3. Design the Items

Guiding questions for determining the **item content**

- Can all respondents answer each item?
- Can all respondents construct or recall an answer?
- Are all respondents willing to give an answer?
- Open-ended (verbatim) questions vs. closed-ended questions:

Please describe how you found out about [brand name] and our services?

How did you find out about [brand name] and our services?

- | | |
|-----------------------|----------------------|
| <input type="radio"/> | Recommendations |
| <input type="radio"/> | Advertisements on TV |
| <input type="radio"/> | Facebook |
| <input type="radio"/> | Other |

3.2 Primary Data

Designing Questionnaires: 3. Design the Items

Guidelines for **item wording**

- Follow the KISS principle
- Active instead of passive voice
- Reverse-scaled items (e.g., “I’m not satisfied with the services of [company]”)

Advantages:

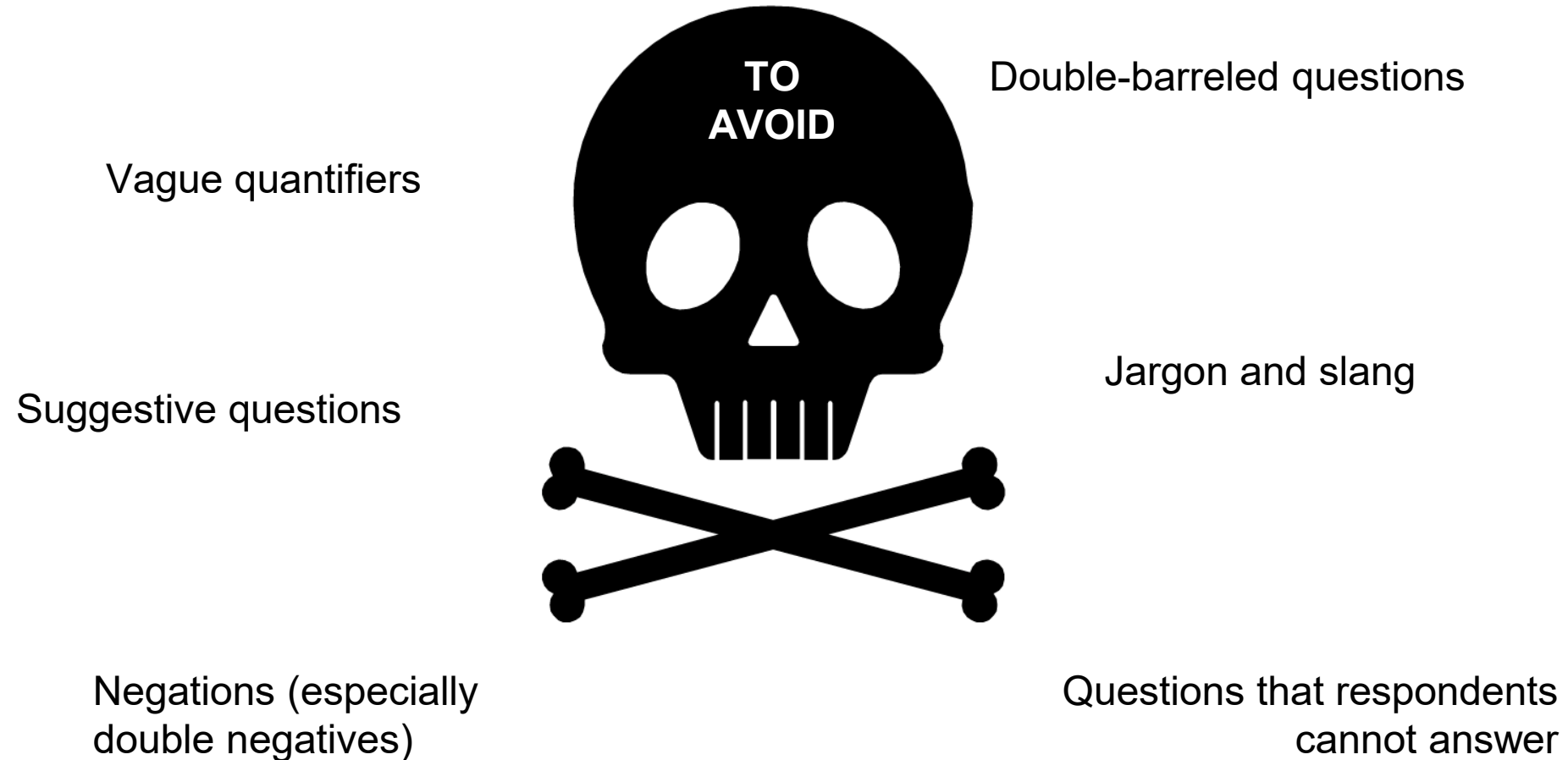
- Cognitive “speed bumps”
- Reduce acquiescence (i.e., respondents’ tendency to agree with items regardless of its content)
- Easier identification of straight-lining

Disadvantages:

- Respondents do not recognize
- Generate artificial factors
- Back-translation in order to keep conceptual equivalence when transferring surveys to different languages

3.2 Primary Data

Designing Questionnaires: 3. Design the Items



3.2 Primary Data

Designing Questionnaires: 3. Design the Items

Example (I)



④ Part 4. Following questions are related to demographic characteristics. Please answer that corresponds you.

4.1.3 What type of city do you live in?

- ☐ Big City (More than 10 million population)
- ☐ Middle to Small City (5 million to 10 million population)
- ☐ Rural area (Less than 5 million population)

NEXT

3.2 Primary Data

Designing Questionnaires: 3. Design the Items

Example (II)

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I am satisfied with the products and services of [company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I am satisfied with the products of [company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the services of [company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.2 Primary Data

Designing Questionnaires: 3. Design the Items

Example (III)

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I am satisfied with the after-sales service of [company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



	Yes	No			
1.1 Did you make use of the after-sales service of [company] during the last six months?	<input type="radio"/>	<input type="radio"/>			

If you answered 1.1 with “Yes,” please proceed to question 1.2. Otherwise, skip question 1.2 and proceed to question 1.3.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
1.2 I am satisfied with the after-sales service of [company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Types of Scales

Semantic differential

I consider the Motel One to be...								
Serious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Fun
Expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Affordable
Established	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	New

Rank order scale

Please rank the following offerings in terms of preference (highest ranking on top)	
Hotel B (€425.- Average consumer rating: 4.0 out of 5)	
Hotel A (€300.- Average consumer rating: 3.5 out of 5)	
Hotel C (€550.- Average consumer rating: 4.5 out of 5)	

Likert scale

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I am satisfied with the cleanliness of the hotel room.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Types of Scales

Example

	Not at all important	Not important	Neither important nor unimportant	Important	Very important
Which of the following service features of [company] are important to you?					
Competent staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friendly staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Good value for money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Please rank the following service features of [company] from most to least important. Assign the number 1 to the most important feature, 2 for the second most important feature etc.	
Competent staff	—
Friendly staff	—
Good value for money	—
...	—

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Types of Scales

Scales levels and their properties

NOTE!
Scale level \neq Scale type

Scale Level	Basic characteristics	Marketing examples	Examples of permissible statistics	
			Descriptive	Inferential
Nominal	Numbers identify and classify objects	Gender, brands	Percentages, mode	Chi-square
Ordinal	Numbers indicate the relative positions of the objects but not the magnitude of differences between them	Service quality ranking, rank order of favourite television programmes, equidistant Likert scales	Percentile, median	Spearman's rank-order correlation
Interval	Differences between objects can be compared - Interval scale: Intervals between adjacent ranks are equal - Ratio scale: Like interval scale but with natural origin	Attitudes, opinions, index numbers, age, income, sales	Range, mean, standard deviation	Product-moment correlation, t-tests, ANOVA, regression, PCA

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Types of Scales

Equidistance

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I am satisfied with the products of [company]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Likert scales are **ordinal** in nature
- Assuming that the psychological distance between the categories is equal (equidistant), we can treat Likert scales as interval
- Analogy: Average exam grades

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Scale properties (I)

Number of response categories

- In marketing practice, 10-point scales commonly used, BUT: trivial wording differences between the scale points
- In research, usually 5 or 7-point scales

Forced-choice vs. free-choice scales

- Forced-choice: Forcing respondent to answer either positively or negatively by omitting the neutral category (e.g., via a 4 or 6-point scale)
- Respondents more comfortable with free-choice; minimizing different types of response biases

Design of response categories

- No overlap in response categories
- Note that response categories give respondents a hint about which ranges of answers are acceptable.
Middle of the scale seen as normal or most common □ Respondents position in relation to that

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Scale properties (III)

Label of response categories?

- Common to label all categories:

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
The products offered by Porsche are of high quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- For predictive analytics, label only endpoints:

	Strongly disagree				Strongly agree
The products offered by Porsche are of high quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Scale properties (IV)

Should I use a “Don’t know” option?

- Use only for factual questions
- Do not use for questions related to attitudes, perceptions, and preferences

	Not at all suitable				Totally suitable	Don't know
In order to increase table tennis' attractiveness to a broader audience, how suitable has the amendment of the ITTF's (International Table Tennis Federation) set of rules on the minimum ball size in 2020 been?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.2 Primary Data

Designing Questionnaires: 4. Set the scales: Scale properties (V)

Balanced or unbalanced scale?

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
The products offered by Porsche are of high quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



	Strongly disagree	Somewhat disagree	Disagree	Neutral	Strongly agree
The products offered by Porsche are of high quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



CAVEAT: many constructs cannot have negative values (e.g., negative trust)

3.2 Primary Data

Designing Questionnaires: 5. Design the Questionnaire (I)


Thank you very much for participating in our survey. In collaboration with the Institute for Marketing of the Ludwig-Maximilians-University Munich, this survey deals with the satisfaction with the product X. By completing this questionnaire you help to understand and improve the customer experience with X.

Filling out this survey will take you about 15 minutes. Your responses will be treated confidentially and anonymously. There are no right or wrong answers. We are interested in your personal opinion. Please, check the respective boxes for your answer like this:

	Strongly disagree			Completely agree		
Question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

By providing answers to the following questions, please keep your latest purchase of product X in mind.

Again, we thank you very much for your participation!



If you have any questions, suggestions, or experience technical problems, please refer to Mark Eting (mark.eting@example.com)

Starting pages of the questionnaire

- If applicable, point out a collaboration with a university, a recognized research institute, or a known charity, to increase respondents' willingness to participate
- Describe importance and goal at the beginning
- Stress the results' confidentiality and mention their later use
- Provide an example question (and answer) to demonstrate how the survey should be filled out
- If questions relate to a specific issue, moment, or transaction, you should indicate this clearly at the very beginning
- Consider including a picture of the research team to increase response rates
- Provide a name and contact details in case of questions or technical problems

3.2 Primary Data

Designing Questionnaires: 5. Design the Questionnaire (II)

Question order

1. First, screeners or classification questions
2. Key variables of the study (first, dependent, then independent ones)
3. Funnel approach:
General questions first, then details;
sensitive questions at the end
4. Demographics (if no screeners)

3.2 Primary Data

Designing Questionnaires: 5. Design the Questionnaire (III)

Layout and format of the survey

- Concise layout of both mail and web-based surveys
- Avoid using small, **colored**, and *atypical* fonts, which reduce readability
- Use booklets for mail-based surveys or if not possible, single-sided stapled paper
- Use percentage counter (i.e., percentage of already filled out questions) for web-based surveys; simple layout compatible with mobile devices and tablets

3.2 Primary Data

Designing Questionnaires: 6. Pretest the Questionnaire & 7. Execution

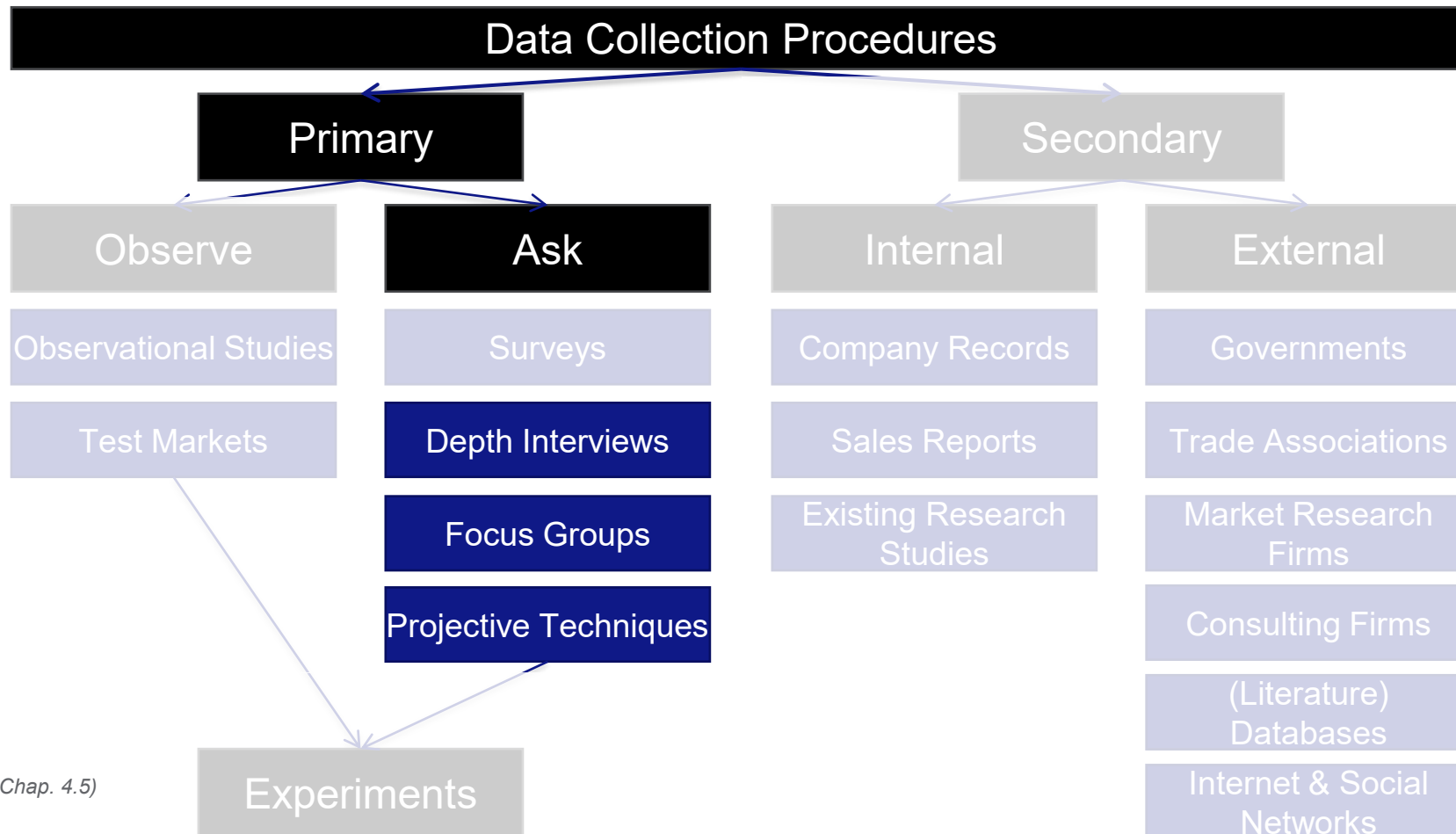
Pretest

- In the relevant environment
- With the relevant stakeholders
- With subjects from the basic population
- Monitor the agency/ institute
- Refinement

Execution

3.2 Primary Data

Depth Interviews, Focus Groups, and Projective Techniques



Source: Sarstedt & Mooi (2019, Chap. 4.5)

3.2 Primary Data

Depth Interviews vs. Focus Groups

Comparison of focus groups and individual in-depth interviews (I)

	Focus Groups	Individual In-Depth Interviews
Group interactions	Group interaction is present. This may stimulate new thoughts from respondents.	There is no group interaction. Therefore, stimulation for new ideas from respondents comes from interviewer.
Group / peer pressure	Group pressure and stimulation may clarify and challenge thinking. Peer pressure and role playing.	In the absence of group pressure, the thinking of respondents is not challenged. With one respondent, role playing is minimized and there is no peer pressure.
Respondent competition	Respondents compete with one another for time to talk. There is less time to obtain in-depth details from each participant.	The individual is alone with the interviewer and can express thoughts in a non-competitive environment. There is more time to obtain detailed information.
Influence	Responses in a group may be biased by opinions of other group members.	With one respondent, there is no potential for influences from other respondents.

3.2 Primary Data

Depth Interviews vs. Focus Groups

Comparison of focus groups and individual in-depth interviews (II)

	Focus Groups	Individual In-Depth Interviews
Subject sensitivity	If the subject is sensitive, respondents may be hesitant to talk freely in the presence of several other people.	If the subject is sensitive, respondents may be more likely to talk.
Interviewer fatigue	One interviewer can easily conduct several group sessions on one topic without becoming fatigued or bored.	Interviewer fatigue and boredom are problems when many individual interviews are needed.
Amount of information	A relatively large amount of information can be obtained in a short period of time at relatively small cost.	A large amount of information can be obtained, but it takes time to obtain it and to analyze the results. Thus, costs are relatively high.
Stimuli	The volume of stimulus materials that can be used is somewhat limited.	A fairly large amount of stimulus material can be used.
Interviewer schedule	It may be difficult to assemble 8 or 10 respondents if they are a difficult type to recruit (such as very busy executives).	Individual interviews are easier to schedule.

3.2 Primary Data

Projective Techniques

Special type of testing procedure, usually used in depth interviews
Although aware of participating in a market research study,
participants may not be aware of the research's specific purpose.

Primary type: Sentence completion:

- An Apple Mac laptop user is someone who...
- The Apple brand makes me think of...
- Apple Mac laptops are most liked by...

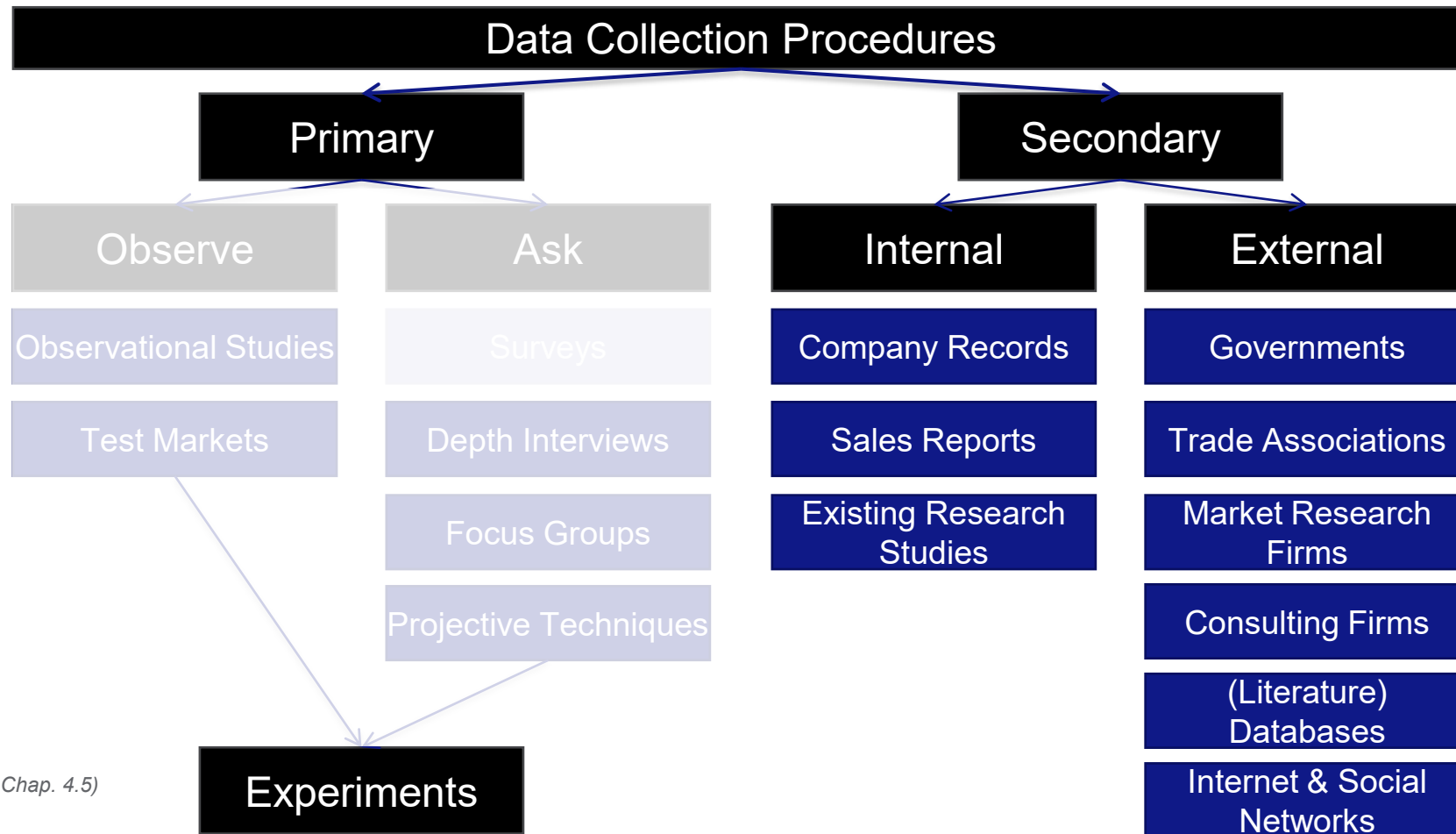
Word associations



Cartoon test



3.2 Secondary Data



Source: Sarstedt & Mooi (2019, Chap. 4.5)