Survey Techniques and their Importance

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Survey Research

Survey Research is a set of procedures in quantitative or qualitative research in which investigators administer a survey to a sample or the entire population of people in order to describe the attitudes, opinions, behaviors, or characteristics of the population.

Philips, P.P., Philipis, J.J., & Aaron, B. (2003).

SURVEY DESIGN

- Survey design is used to collect information from different subjects within a given population having same characteristics of interest.
- If survey is conducted on a sample of population, it is called sample survey.
- If the entire population is involved in the survey, it is called population survey (or census).
- Survey data can be collected in a number of ways. The most common method is questioning.
- The information is obtained directly from the respondents by self-reporting questionnaires.
- The information is obtained directly from the respondents by self-reporting questionnaires.
- Some times face-to-face interview method may be used.

When is Survey Research appropriate?

- Survey research is appropriate means of gathering information under three major conditions:

a) When the goals of the research call for **quantitative and qualitative data**,

b) When the information sought is **specific and familiar to the respondents**,

c) When the **researcher has prior knowledge of the responses** that are likely to emerge

Why Are Surveys Conducted?

1. Surveys are primarily used to describe characteristics of a population.

2. Researchers use surveys to examine the distribution of the identified characteristics within the population.

3. The description of the population as a whole is inferred by the results obtained from the sample.

Characteristics of Survey Research

DESCRIPTION	• It can be used to describe phenomena and summarize them. Also, the usual goal is to get a precise measurement of such phenomena.
CAUSAL EXPLANATION	• It measures associations between variables; e.g., school grades and self-esteem.
EVALUATION	• It can be useful for determining the degree to which a desired objective is attained as a result of a planned program, hence surveys after interventions.
PREDICTION	• Survey data can be used to forecast future events.

PURPOSE OF SURVEYS

Whilst each survey has its own goal, the purpose of surveys is to help you develop an understanding of your audience with the aim of informing decision-making.

- Market researchers use surveys to collect data on consumer behavior, product preferences, and industry trends to make better business decisions.
- Public opinion pollsters use surveys to gather information on political opinions, voting patterns, and public attitudes.
- Academics can use surveys to collect data that is vital to their research.
- When creating a survey, you should ask yourself what you're trying to achieve. This will be the goal of your survey.
- Then, each of your survey questions should be tailored to help you meet that goal. This has two major benefits, firstly you're only collecting the data you need, and secondly, your survey is concise (which is good for respondents).

DIFFERENT TYPES OF SURVEYS

Survey research can take a variety of forms, based on what you're trying to achieve. Here are a few examples of the different types of surveys:

- Academic research
- Market research
- Customer satisfaction
- Product feedback
- Concept testing
- Website feedback
- Event feedback
- Employee satisfaction
- 360-degree feedback

HOW TO CONDUCT A SURVEY?

There a are a few ways you can conduct surveys and get the feedback you need:

- Online surveys
- Telephone surveys
- Face-to-face interviews
- Paper questionnaires
- Polls

The method that gives you access to the largest audience is online surveys, which can easily be created, customized, and shared with respondents.

WHEN TO CONDUCT A SURVEY?

- Surveys can be conducted at any time and for almost any purpose. The true skill is identifying when they'll be most effective.
- You certainly don't want to blitz your audience with surveys, this will lead to survey fatigue.
- It's up to you to identify an area where feedback will help you improve.
- For example, maybe you have a high number of abandoned carts in your online store. This is an excellent opportunity to find out why people aren't making a purchase.

PURPOSE OF SURVEY

- **Identify your strengths and weaknesses:** Collecting feedback from respondents is the easiest way to find out what you're doing well and what areas need improvement.
- **Develop an understanding of your audience:** Surveys are the perfect tools for learning more about your audience, whether they're your employees, customers, or subscribers.
- **Get feedback on your products or services:** If you offer a product or service, it's essential to collect feedback to measure customer attitudes. For example, you can ask whether your product is good value for money and why.

PURPOSE OF SURVEY...

- **Give your audience a voice:** The purpose of surveys is not just to get answers, they're also an important relationship building tool. At the end of the day, people want to be heard. To know that their opinion and their needs matter to someone else.
- Whether you're asking customers what they think about your product or employees if they're happy in their role, just asking can go a long way in showing you care. Doing so makes people feel they're an important part of something, which creates stronger relationships and builds trust.
- **Boost performance:** A commercial benefit of surveys is that they enable you to boost aspects of your performance. This could be as simple as finding out what people love about your product and converting that into marketing copy for your website.

PURPOSE OF SURVEY...

- **Encourage honest feedback:** Surveys are a chance to collect unbiased and open feedback from people who matter to you. Respondents are more likely to be honest where their feedback is anonymous, in an environment where they won't feel judged.
- This is where online surveys and paper questionnaires can be more effective than face-to-face interviews or live panel discussions.
- **Inform decision making:** Rather than making assumptions about why something happens, you can go straight to the source and identify the why of it all.
- They give you an objective data set that you can use to identify the cause of issues or frictions that your audience may experience.
- Once you've done this, you can make informed decisions to address those problems.

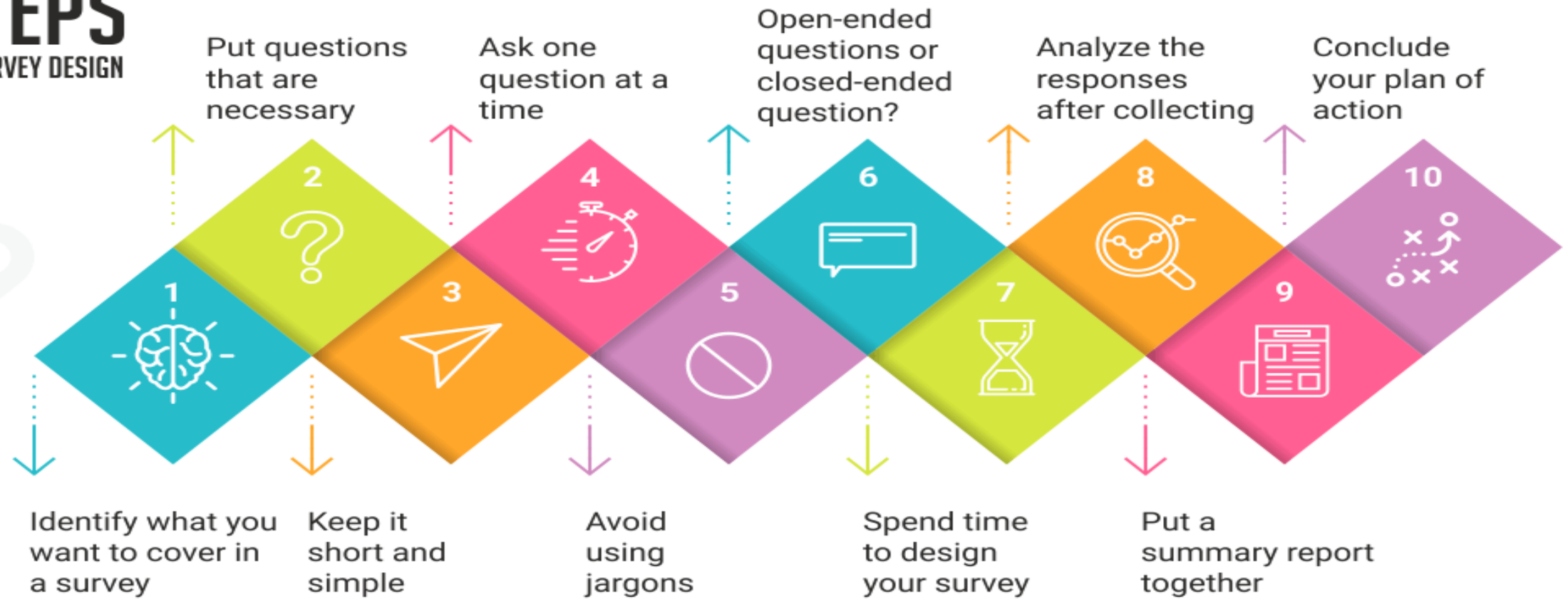
PURPOSE OF SURVEY...

- **Measure change over time:** Individual surveys give you a picture of what life is like for your audience at that moment, and that's great. But to continue succeeding you should be conducting surveys at regular intervals to measure how effective your changes are.
- In doing so, your relationships with your audience become a living breathing thing, with ups and downs as time passes. This sort of overview is what will set you apart from the competition.
- A bird's eye view of your relationships gives you more information than any single survey could.

Steps In Survey Research

1. Define the problem
2. Identify the population
3. Choose the type of instrument to collect the data
4. Design, construct, pilot and refine the instrument
5. Select a representative sample
6. Administer the survey
7. Analyze, interpret, and communicate your findings

10 STEPS
TO A GOOD SURVEY DESIGN



Types of Questions in a Questionnaire

- Open questions
  - more information but difficult to codify, enter, and analyze
- Closed questions
  - less information but easy to codify, enter, and analyze

Open-ended questions

- Help collect qualitative data in a questionnaire where the respondent can answer in a free form with little to no restrictions.
  - What are your expectations/ requirements for this product (**Information gathering)**
  - What do you see as the next action steps? **(Qualifying)**
  - What's the most important priority to you with this? Why? **(Establishing rapport)**

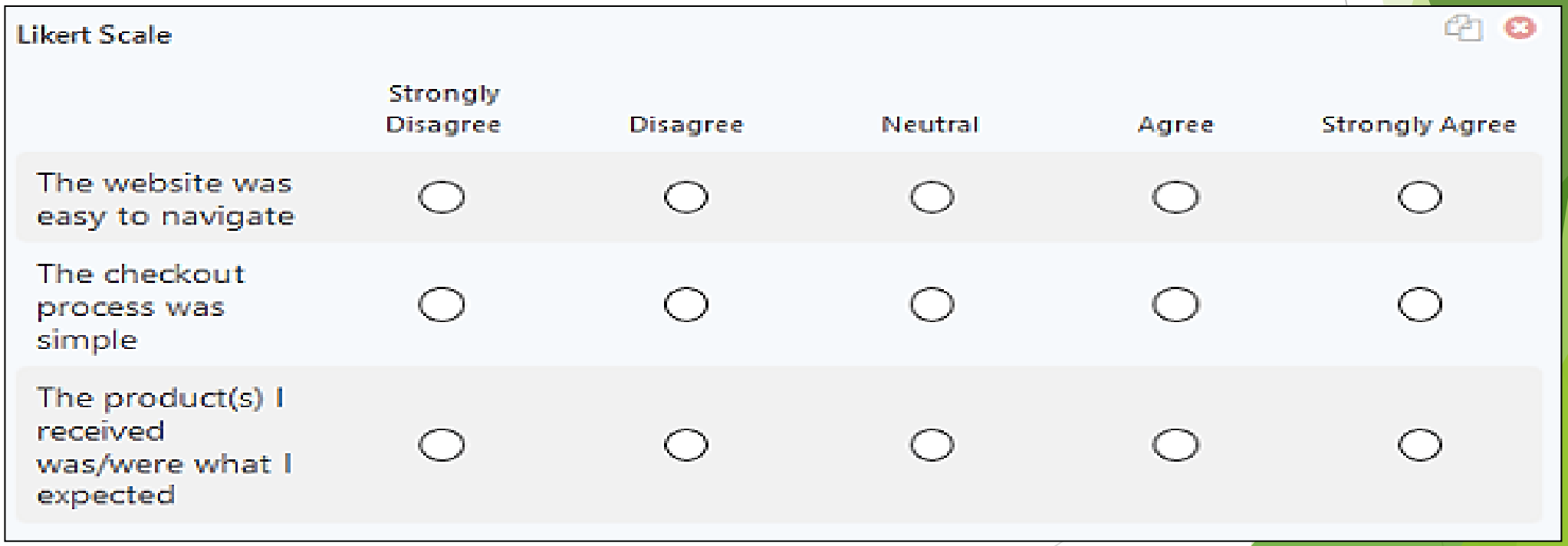
Close-ended questions

- They are a multiple-choice questions type in which a respondent has to select one (single select multiple choice question) or many (multiselect multiple choice question) responses from a given list of options.

  - Have you been stressed lately?
  - ❑ Yes
  - ❑ No

Types of Multiple Choice Questions

- Likert Scale



Types of Multiple Choice Questions

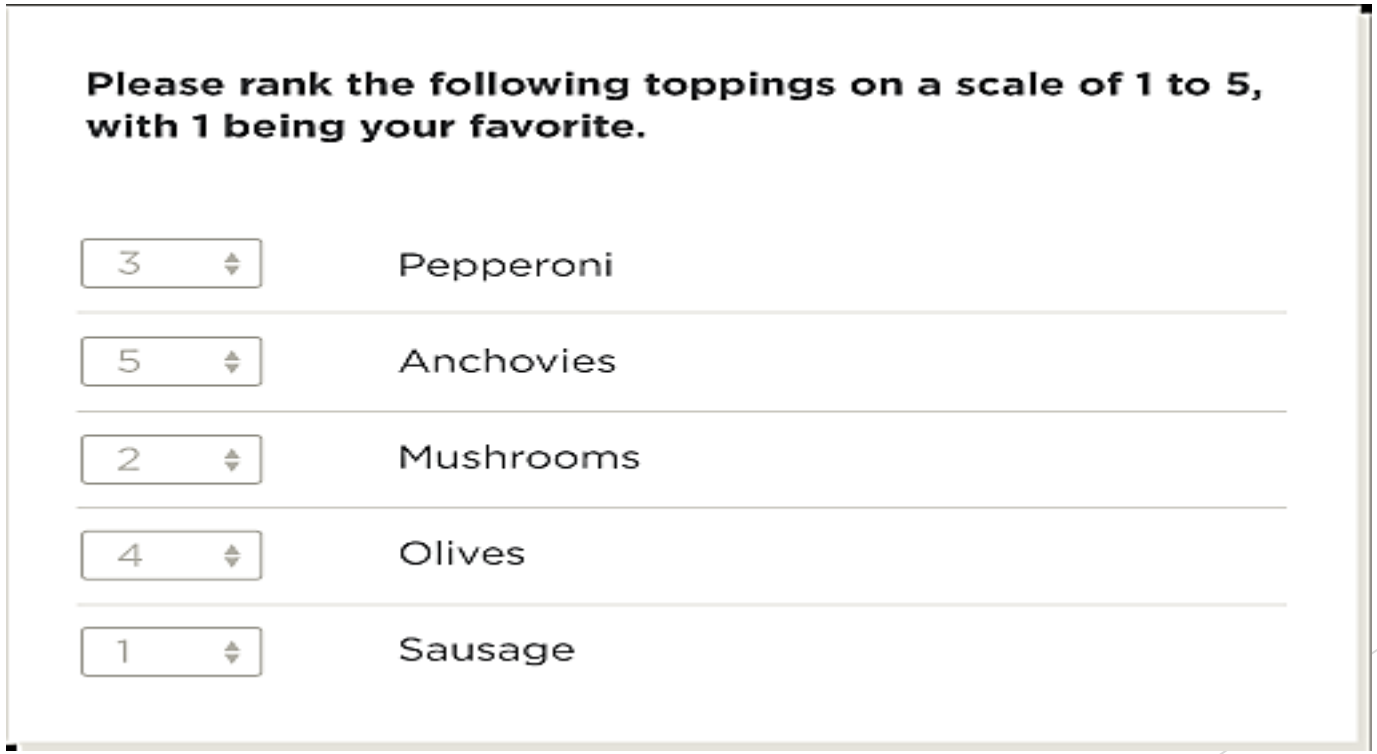
- Checklist type

Which of the following would you like to see in the showroom :

- [ ] Sports Utility Vehicle
- [ ] Sedan
- [ ] Hatchback
- [ ] Convertible
- [ ] All the above

Types of Multiple Choice Questions

- Rank Order



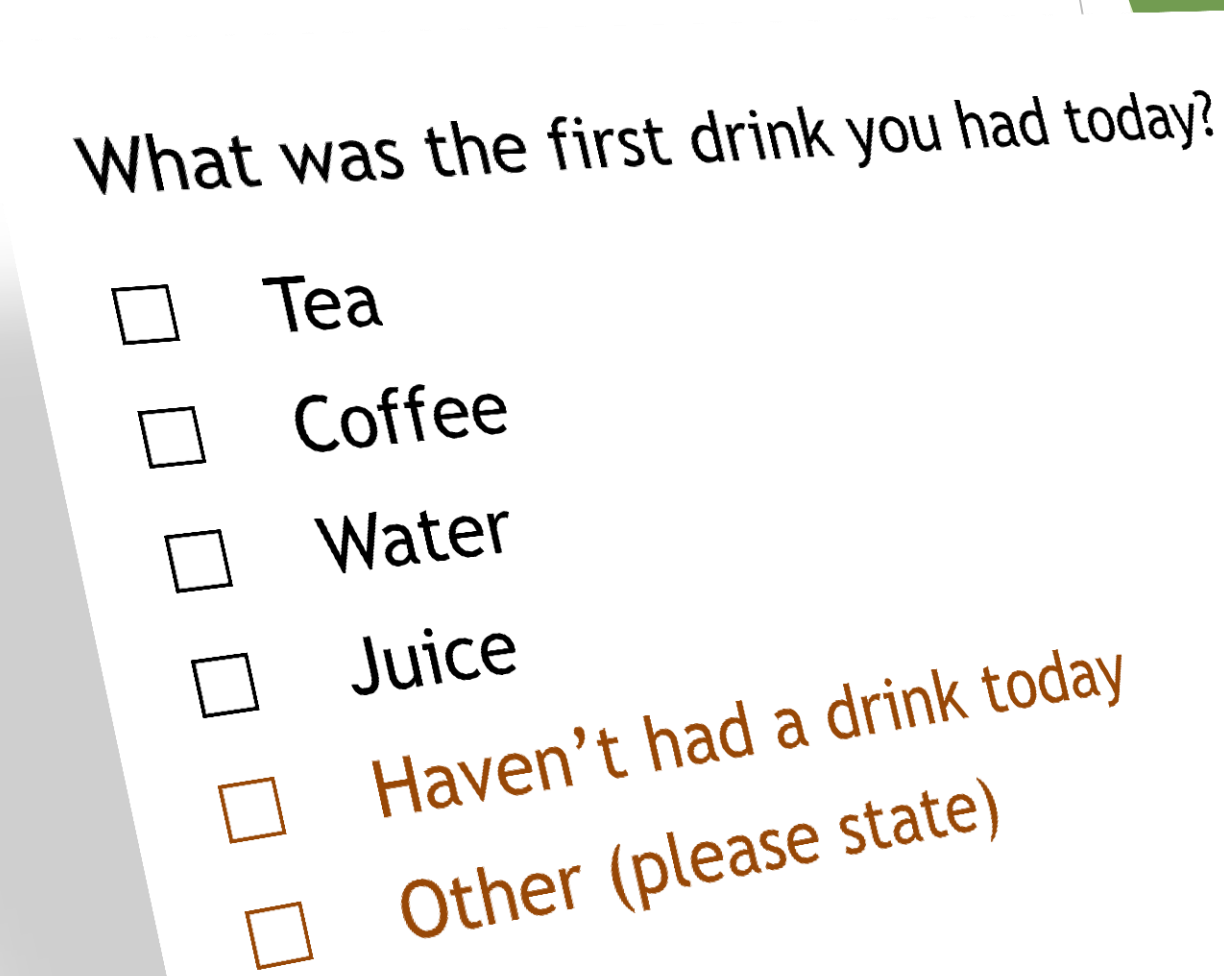
Types of Multiple Choice Questions

- Rating Scale

		1	2	3	4	5	6	7	
Waiting time	Very poor	☐	☐	☐	☐	☐	☐	☐	Excellent
How important is the length of waiting time to you?	Not important	☐	☐	☐	☐	☐	☐	☐	Very important
Quality of magazines in waiting room	Very poor	☐	☐	☐	☐	☐	☐	☐	Excellent
How important is the quality of magazines in waiting room to you?	Not important	☐	☐	☐	☐	☐	☐	☐	Very important

Common mistakes

What might be wrong with this question?



Need to cover all options

Common mistakes

What might be wrong with thi question?

What is your age group?

0-18	18-30	30-45	45+
☐	☐	☐	☐

✘

0-18	19-30	31-45	46+
☐	☐	☐	☐

✓

Options should be mutually exclusive.

Common mistakes

What might be wrong with thi question?

Options should be balanced

What did you think about the waiting time?

Excellent	Very good	Good	Average	Poor
☐	☐	☐	☐	☐

‘Good’ responses

‘Bad’ response

Common mistakes

What might be wrong with thi question?

How would you rate the appointment booking service using the:

	Good	Average	Poor	N/A
Website	☐	☐	☐	☐
Phone	☐	☐	☐	☐
Reception	☐	☐	☐	☐

Use opt-out responses appropriately

SURVEY RESEARCH DESIGNS

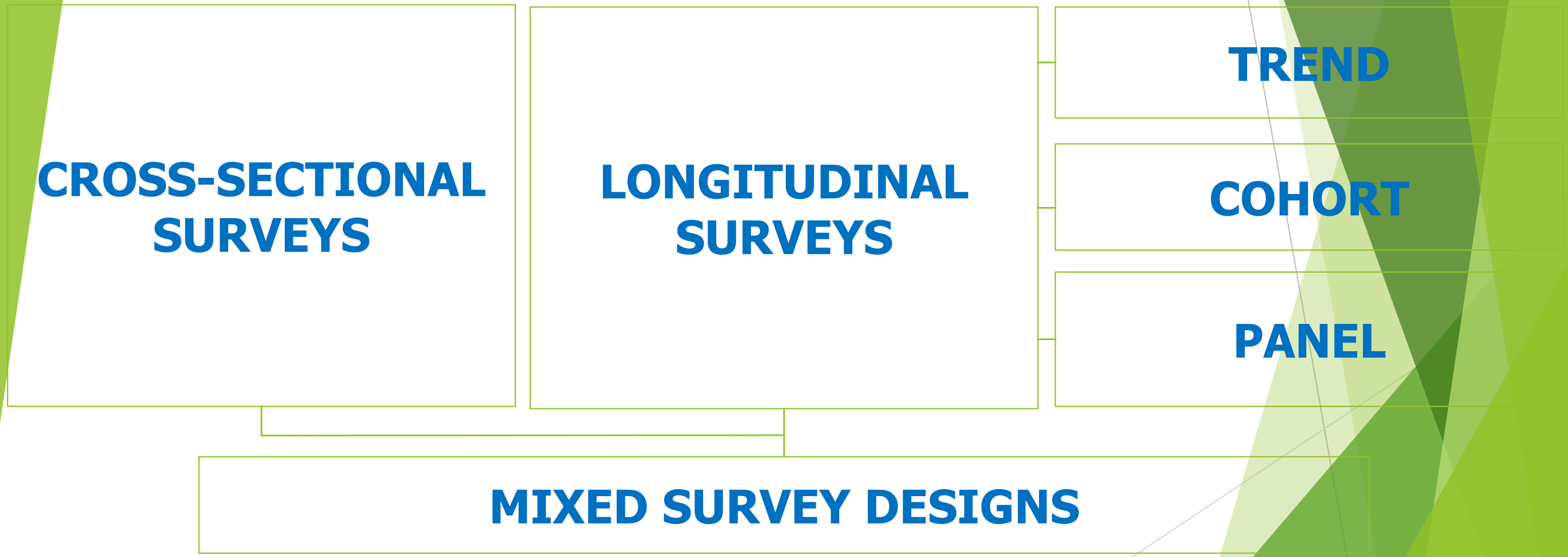
EXPERIMENTAL

includes surveys that can be taken before, during, and after a program, event, or intervention (compares results between control and experimental groups)

DESCRIPTIVE

looks into the status of a given situation using a survey (examines associations of variables rather than causal relationships)

DESCRIPTIVE SURVEY RESEARCH DESIGNS



CROSS-SECTIONAL SURVEY

- It involves **the collection of data** (e.g., number of people who hold particular behaviors, attitudes, or beliefs) **at a single point in time from a sample drawn** from a specified population.

- It offers the opportunity to assess relations between variables, moderators of relations (on the causal processes), and differences between subgroups in a population.

- Also called *one-shot survey design*

GENERAL FEATURES OF A CROSS-SECTIONAL SURVEY

- It **describes the characteristics of a large population** as it makes use of large (statistically significant) samples.
- It **allows use of various methods of data collection** such as questionnaire, structured and unstructured interviews and document analysis.
- It also **makes use of standardized questions** where reliability of the items is determined.
- Further, **the findings of the study can be generalized.**

LONGITUDINAL SURVEYS

- Generally, in longitudinal surveys, **data are collected at different points in time to study changes** that occur over a period of time.

- With longitudinal surveys, for example, the same group of people is interviewed at regular intervals, **enabling researchers to track changes over time and to relate them to variables that might explain why the changes occur.**

GENERAL FEATURES OF A LONGITUDINAL SURVEY

- It **allows the analysis of duration** of a particular phenomenon.
- It **enables survey researchers to get close to the kinds of causal explanations** usually attainable only with experiments.
- It **permits the measurement of differences or changes in a variable** from one period to another.
- It **facilitates the prediction of future outcomes** based upon earlier factors.

TYPES OF LONGITUDINAL SURVEYS

- **TREND SURVEY** samples a population (focused on trends) whose members may change over the course of the study.

- For example, a researcher might be interested in the attitudes of high school principals toward the use of flexible scheduling. This researcher would select a sample each year from a current listing of high school principals throughout the state.

- Although the sample population would change somewhat and the same individuals would not be sampled each year, if random selection were used to obtain the samples, the responses obtained each year could be considered representative of the population.

TYPES OF LONGITUDINAL SURVEYS…

- **COHORT SURVEY** is conducted over a period of time involving members of a population with some commonality or similarity (Healy & Devane, 2011).

- Using a quantitative framework, a cohort study makes note of statistical occurrence within a specialized subgroup, united by same or similar characteristics that are relevant to the research problem being investigated, rather than studying statistical occurrence within the general population.

- Using a qualitative framework, cohort studies generally gather data using methods of observation.

TYPES OF LONGITUDINAL SURVEYS…

- **PANEL SURVEY** studies the same sample of a population (focused on changes) at different times during the course of the study.

- Because the researcher is studying the same individuals, he or she can note changes in their characteristics or behaviors, and thus, explore the reasons for these changes.

- However, loss of individuals is a frequent problem in panel studies particularly if the study extends over a fairly long period of time.

SURVEY RESEARCH: MIXED DESIGN

CROSS-SECTIONAL SURVEYS

LONGITUDINAL SURVEYS

MIXED-DESIGN SURVEYS

If, for example, a researcher is interested in conducting a two-wave panel survey but is concerned about carry-over effects, he or she should conduct an additional cross-sectional survey at the second wave. That is, the identical questionnaire could be administered to both the panel respondents and to an independent sample drawn from the same population.

SPECIFYING A SURVEY DESIGN

Cross-Sectional
Longitudinal (Trend, Cohort, Panel)
Mixed Design

SAMPLING

Probability Sampling
Simple Random
Systematic
Stratified
Cluster

Nonprobability Sampling
Haphazard
Purposive
Snowball
Quota

DESIGNING A QUESTIONNAIRE

Open & Closed Questions
Rating & Ranking
Order of Response Alternatives
Question Wording
Question Order

PRETESTING

Conventional Pretesting
Behavior Coding
Cognitive Interviewing

COLLECTING DATA

Mode
Interviewing
Supervision
Validation

POTENTIAL ISSUES IN SURVEY RESEARCH

- **QUESTIONNAIRE DESIGN**
  - Question is unclear.
  - Multiple questions.
  - Question is wordy.
  - Question is negatively worded.
  - Overlapping responses.
  - Unbalanced response options.
  - Mismatch between questions and answers.
  - Question includes overly technical language.
  - Not all questions are applicable to all the participants.

POTENTIAL ISSUES IN SURVEY RESEARCH…

- **ISSUES IN SAMPLING AND RESPONDENT SELECTION**
  - Ethical issues and confidentiality requirements
  - Non-randomized respondent selection
  - Complex targeting and segmentation
  - Perceptual mapping and discriminant analysis

POTENTIAL ISSUES IN SURVEY RESEARCH…

- **NONRESPONSE:** It refers to members of a sample who do not respond to the instrument. There are two general types of nonresponses:

- **Total Nonresponse** : not responding to the entire survey or instrument.

- **Item Nonresponse** : not responding to some of the questions within a survey or instrument.

Reducing Nonresponse

Examples of methods to reduce nonresponse…

1. Pretesting an instrument
2. Training interviewers
3. Providing incentives for participation

Contacting non-respondents and using with an alternate form of the instrument used for testing for nonresponse error

POTENTIAL ISSUES IN SURVEY RESEARCH…

- **THREATS TO INTERNAL VALIDITY**
  - Mortality
  - Location Threat
  - Instrumentation (including defects in the instrument itself)
  - Instrument Decay (interviewers get tired/are rushed)

Reliability and Validity

Reliability

- Reliability refers to how consistently a method measures something. If the same result can be consistently achieved by using the same methods under the same circumstances, the measurement is considered reliable.
- Reliability is about the consistency of a measure.

Validity

- Validity refers to how accurately a method measures what it is intended to measure. If research has high validity, that means it produces results that correspond to real properties, characteristics, and variations in the physical or social world.
- Validity is about the accuracy of a measure.

Relation

- Reliability and validity are closely related, but they mean different things.
- A measurement can be reliable without being valid.
- However, if a measurement is valid, it is usually also reliable.

Reliability: Examples

You measure the temperature of a liquid sample several times under identical conditions. The thermometer displays the same temperature every time, so the results are reliable.

A doctor uses a symptom questionnaire to diagnose a patient with a long-term medical condition. Several different doctors use the same questionnaire with the same patient but give different diagnoses. This indicates that the questionnaire has low reliability as a measure of the condition.

Validity: Examples

- If the thermometer shows different temperatures each time, even though you have carefully controlled conditions to ensure the sample's temperature stays the same, the thermometer is probably malfunctioning, and therefore its measurements are not valid.
- If a symptom questionnaire results in a reliable diagnosis when answered at different times and with different doctors, this indicates that it has high validity as a measurement of the medical condition.
- The thermometer that you used to test the sample gives reliable results. However, the thermometer has not been calibrated properly, so the result is 2 degrees lower than the true value. Therefore, the measurement is not valid.

QUESTION

THANK YOU ALL

To be Continued ....