



# RESEARCH METHODS-I

## RESEARCH METHODS AND SAMPLING TECHNIQUES

# Response Set

## Yanıt Yanlılığı

**Inference:** People always give honest answers.  
Not quite... not always... ☹️

**Response Set:** A pattern of individual responses to questions on a self-report measure that is not related to the content of the question.

**Social desirability:** Especially on sensitive topics!  
e.g., violence.

# Creating a Survey

- **Defining research aims/objectives**

Judd et al. (1991) propose 3 types of questions:

- **Attitudes and beliefs:**

- Demographic information:**

- Demographic characteristics of participants (e.g., gender, age, etc.)

- **Behaviors:**

- Spending habits, exercise, reading, working, etc.

# Open-Ended & Closed-Ended Questions

- **Open-ended Questions**
  - The participants are free to respond in any way they wish...
- **Close-ended Questions**
  - Multiple-choice format



# Response Formats

- **Closed-ended Questions**

Yes / No, Agree / Disagree (dichotomous form)

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

- **Rating Scales**

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

- **Graphic Rating Scale (Likert Scale)**

Performance evaluations... (workplace)

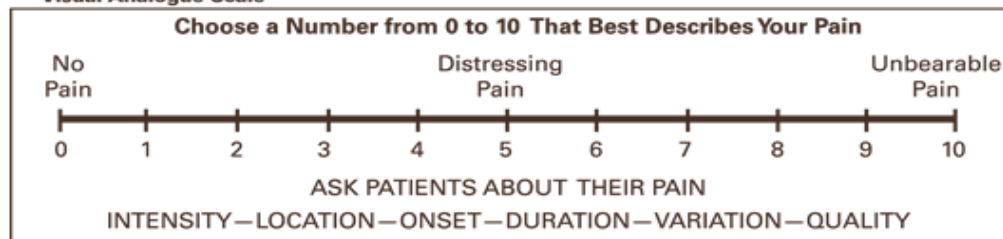
*(How would you rate the movie Titanic?)*



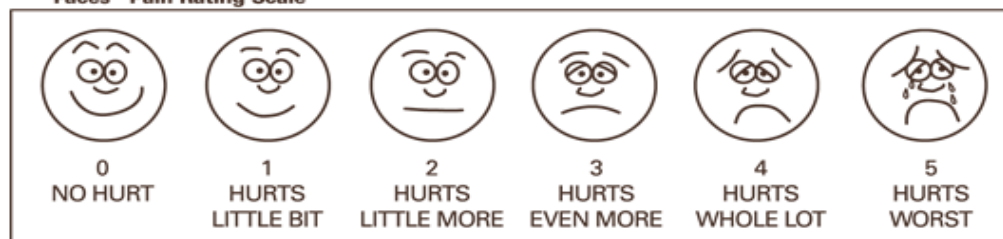
# Non-verbal Response Formats

Figures: Tools Commonly Used to Rate Pain

Visual Analogue Scale



"Faces" Pain Rating Scale



Behavioral Observation Pain Rating Scale

| Categories  | Scoring  |  |  |
|---|--|--|--|
|   | 0  | 1  | 2  |
| Face  | No particular expression or smile; disinterested | Occasional grimace or frown, withdrawn                                 | Frequent to constant frown, clenched jaw, quivering chin |
| Legs  | No position or relaxed                           | Uneasy, restless, tense  | Kicking, or legs drawn up                                |
| Activity  | Lying quietly, normal position, moves easily     | Squirming, shifting back and forth, tense                              | Arched, rigid, or jerking                                |
| Cry   | No crying (awake or asleep)                      | Moans or whimpers, occasional complaint                                | Crying steadily, screams or sobs, frequent complaints    |
| Consolability   | Content, relaxed                                 | Reassured by occasional touching, hugging, or talking to. Distractible | Difficult to console or comfort                          |
| Each of the five categories (F) Face; (L) Legs; (A) Activity; (C) Cry; (C) Consolability is scored from 0-2, which results in a total score between 0 and 10. |  |  |  |

# Survey Research

- **Survey research** uses surveys and interview methods to gather information about one's:
  - Attitudes, beliefs, demographic characteristics, and other similar data...
- Surveys are primarily conducted in two ways:
  - Surveys (written form)
  - Interviews



# Questionnaires

## Questions presented in written format

- Participants write their own responses.
- **Advantages:**
  - Low cost
  - Anonymous
- **Disadvantages:**
  - Participants must be literate
  - Perceived as boring by some people → affects motivation

## CUSTOMER SURVEY

Thank you for shopping with us! Please take a few minutes to rate us so we can serve you better.

Very Bad   Bad   Neutral   Good   Excellent

Your question goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

☐ ☐ ☐ ☐ ☐

Your question goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

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How else can we improve?

Your Name:

Date:



# Survey Applications

## Group vs. Individual

- **Group or individual**
  - University students
  - Parent-teacher meetings
  - New employee meetings/workplaces
  - Military personnel
- **Advantages:**
  - A fixed target audience to complete the survey
  - Large sample size
  - The researcher can be present



# Survey Applications

## Mail Surveys

- **@home** 😊 - In home environment or workplaces

**Advantage:** It is quite inexpensive

**Disadvantage:** Low response rate + researcher may not be available



# Survey Applications via Internet

## Advantages:

- Suitable for both open-ended and closed-ended questions
- Participants' responses are transmitted to the researcher instantly
- Some websites provide free platform forms, e.g., SurveyMonkey.com

## Disadvantages:

### Sample:

- Individuals may participate based on their own interests
- Difficult to control for participants' demographic characteristics
- Potential for misleading responses from participants...

# Interviews

**The interviewer asks questions and records the answers**

- Direct contact with the participant...
- People are more likely to agree to answer questions when they have a real person in front of them!
- Response rates are higher 😊
- If a good rapport is established (?), all questions will be answered.

- **Interviewer Bias!!**

- **Accidental confirmation or disconfirmation of answers** (gestures, facial expressions, nodding, etc.)
- **Different interviewer characteristics** (gender, age, etc.)  
Some interviewers focus on "what they are looking for"...

# Types of Interviews

## Face-to-Face

- With the researcher themselves
- Costly and time-consuming
- More suitable for small samples



## Phone Interviews

- Larger sample sizes
- Low cost + quick data collection



## Focus Groups

- 2-3 hours with N=6-10 + participants are specifically selected
- Open-ended questions
- Need good interviewers to address issues...



# Longitudinal Research

- **Comparisons of changes over time**

Researchers test hypotheses regarding how behaviors change over time.

For example, Sebald (1986) compared surveys on whom adolescents sought advice from in 1963, 1976, and 1982.

**Results:** Advice from peers increased between 1963 and 1976, while it decreased between 1976 and 1982, compared to advice from parents...

Mothers, N=12  
Fathers, N=12  
Adolescents, N=12



# Sampling

- The process of selecting members of the population to be included in the sample.
- Research uses data obtained from a sample to make inferences about the population.

# Population

- A defined group of individuals from which a sample is taken  
(e.g., married individuals, psychology students etc.)
- The sample must reflect the population!!!  
Otherwise, we face the risk of **sampling bias... (örnekleme yanlılığı)** – not reflecting that sample or population!

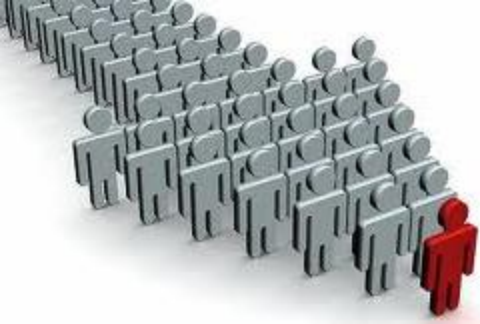


# Sampling



**Ideal:** Including the entire population... (nüfus sayımı)

- Determining a sample from the population of interest...  
Adolescents, adults, prisoners, teachers...
- Good sampling allows us to make inferences about the **entire population**.
- **Statistical Theory**  
Sample → population  
Statistical significance (later on)



# Sampling Techniques

- **Probability Sampling**
  - Simple Random Sampling – equal chance of selection
  - Stratified Random Sampling
  - Cluster Sampling
- **Nonprobability Sampling**
  - Haphazard sampling - *Ulaşılabilirlik*
  - Purposive Sampling
  - Quota Sampling
  - Snowball Sampling



# Probability Sampling

- You can determine the probability of any member of the population being included in the sample.
- The best way to make inferences about a population...

# Probability Sampling

## Simple Random Sampling

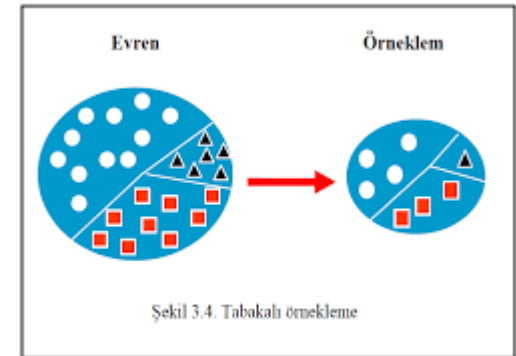
- The probability of sampling all individuals in the population is equal.
- N's are randomly selected using various methods;  
e.g., psychology students.
- If you are interested in surveying ÇAĞ UNIVERSITY students, you will need a complete list of all students...

# Probability Sampling

## Stratified Sampling

### *Tabakalı Rastgele Örnekleme*

- **Dividing the population into subgroups**  
e.g., age, gender, education level, political views.
- **Random selection within strata/layers**  
e.g., we want to select 9 cubes from a total of 30...
- When categorized by color (blue, green, pink) and taking 3 from each group, we get 9 cubes...

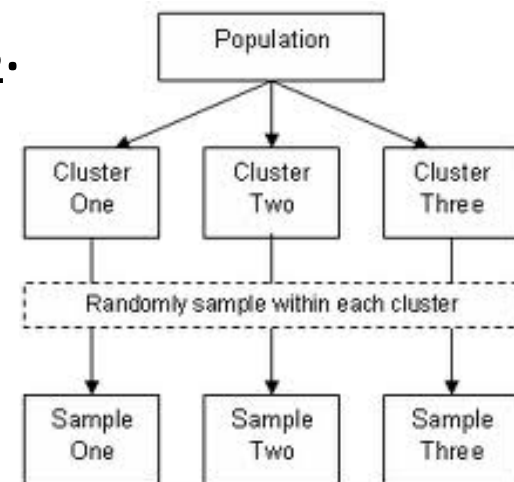


# Probability Sampling

## Cluster Sampling

### *Küme Örnekleme*

- **Population lists are usually unavailable!!**
- Used when you can't identify individuals.
- Randomly sample clusters of people in identifiable groups.
  - e.g., sample from each ENG102 section.
- Collect data from all people within the sampled clusters.



# FARKLARI??

- **Tabakalı Örneklem**: Alt gruplar (tabakalar) homojendir.
- Aynı tabakada yer alan bireyler benzer özelliklere sahip!!
  - Örneğin, yaş, cinsiyet ya da gelir seviyesine göre tabakalar oluşturulabilir.
- **Küme Örneklem**: Kümeler heterojendir.
- Her küme popülasyonun küçük bir temsili olarak kabul edilir.
  - Küme içindeki bireyler çeşitli özellikler taşıyabilir.

# Nonprobability Sampling

- A type of sampling procedure in which one cannot specify the probability that any member of the population will be included in the sample
- Accidental or convenience sample
- Cheap and convenient
- Introduces biases – big problem when people select themselves to be part of the survey (return a magazine survey, for example)



# Nonprobability Sampling


## Haphazard Sampling

- Kolayda Örnekleme (**Convenience Sampling**)
- Select Ss “conveniently” – En kolay yol ile
- Population: ÇAĞ UNIVERSITY. Stand in front of the cafétéria between 12:00 and 13:30 and ask people to participate your research.
- Disadvantages
  - Biases → e.g., **you’d exclude students who eat at dorms...**
  - Difficulty in sample → population (generalisation)

# Nonprobability Sampling

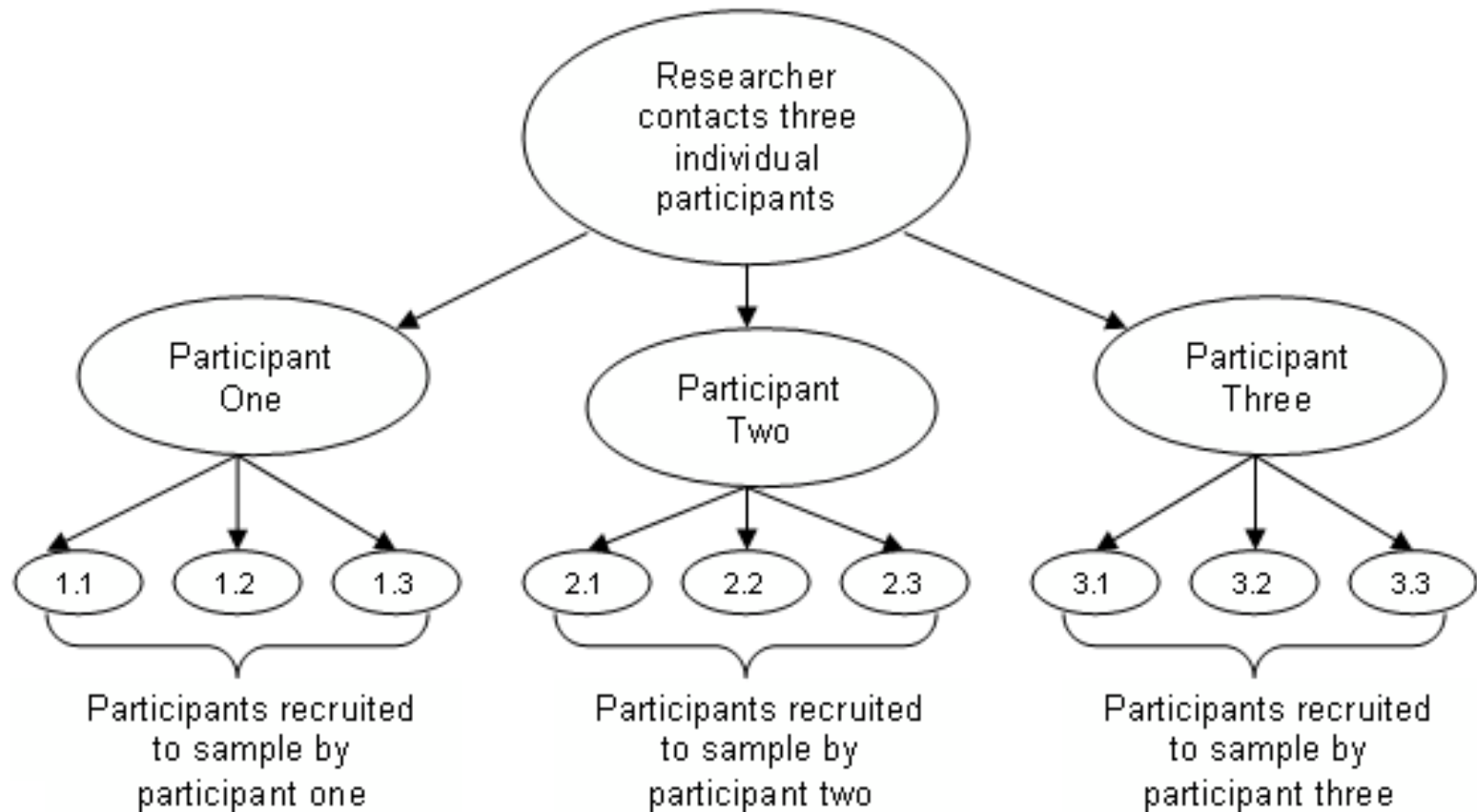
## Purposive Sampling

### Amaçlı Örnekleme

- Aim → selecting Ss who meet predetermined criteria.
- e.g., population: young theatre goers
  - Not just anyone walking towards the theatre
  - Under, say, 30 years of age.
  - Students (or who look like students)
- A smart practical way of approaching to having a good sample
- But, recall that not a probabilistic sampling process  


# Nonprobability Sampling

## Snowball Sampling



# Sampling Frame

- Sampling frame → the actual population of interest.
- Population: residents of Tarsus 😊
- Possible sampling frames can be:
  - *People who go to Kebapçı Eyüp* 😊



Overall, how do you feel  
about your future?

- ☒ very optimistic
- ☐ somewhat optimistic
- ☐ somewhat pessimistic
- ☐ very pessimistic

**Any questions???** 😊