



RESEARCH METHODS-I

One way to find out how you feel about your future?

very optimistic
 somewhat optimistic
 somewhat pessimistic
 very pessimistic

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)

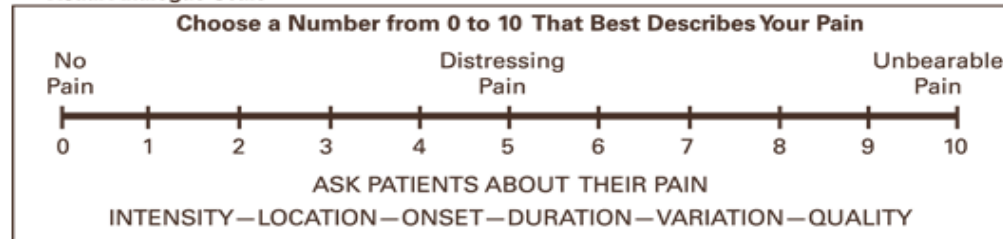
(How would you rate the movie Titanic?)



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Face	No particular expression or smile; disinterested	Occasional grimace or frown, withdrawn	Frequent to constant frown, clenched jaw, quivering chin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.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your question goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your question goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your question goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your question goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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...

... Males, N=12
... Females, N=11
... Ambiguity, N=13



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

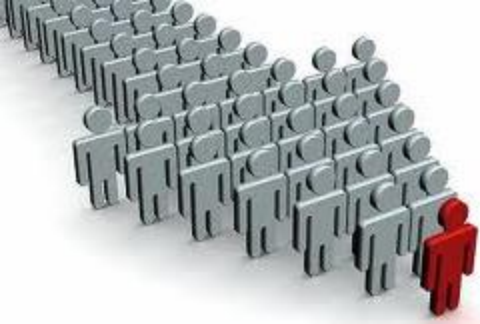
- A defined group of individuals from which a sample is taken (e.g., married individuals, psychology students etc.)
- The sample must reflect the population!!! Otherwise, we face the risk of **sampling bias... (örnekleme yanlılığı)** – not reflecting that sample or population!

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

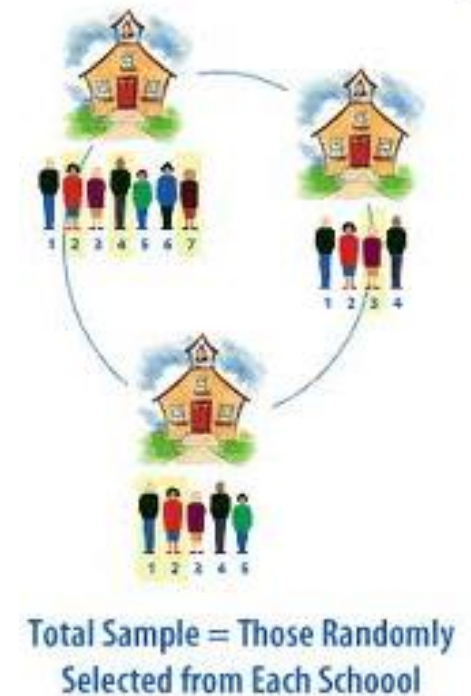
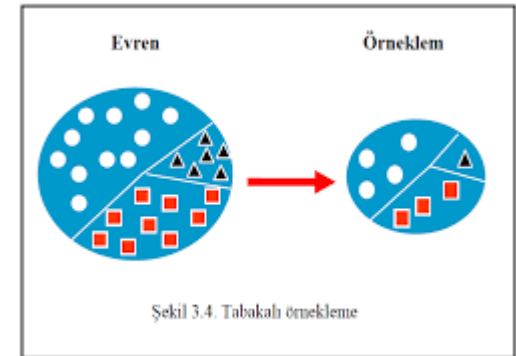
- The **probability of sampling** all individuals in the **population is equal.**
- N's are randomly selected using various methods;
e.g., psychology students.
- If you are interested in surveying ÇAĞ UNIVERSITY students, you will need a complete list of all students...

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...

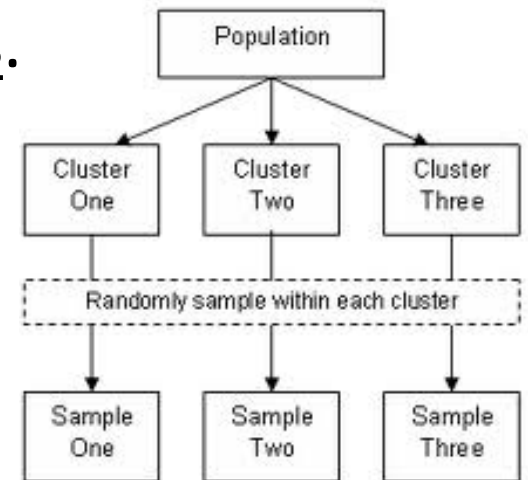


Probability Sampling

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 Örneklemeye**: Alt gruplar (tabakalar) homojendir.
- Aynı tabakada yer alan bireyler benzer özelliklere sahip!!
 - Örneğin, yaş, cinsiyet ya da gelir seviyesine göre tabakalar oluşturulabilir.
- **Küme Örneklemeye**: 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 cafeteria 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

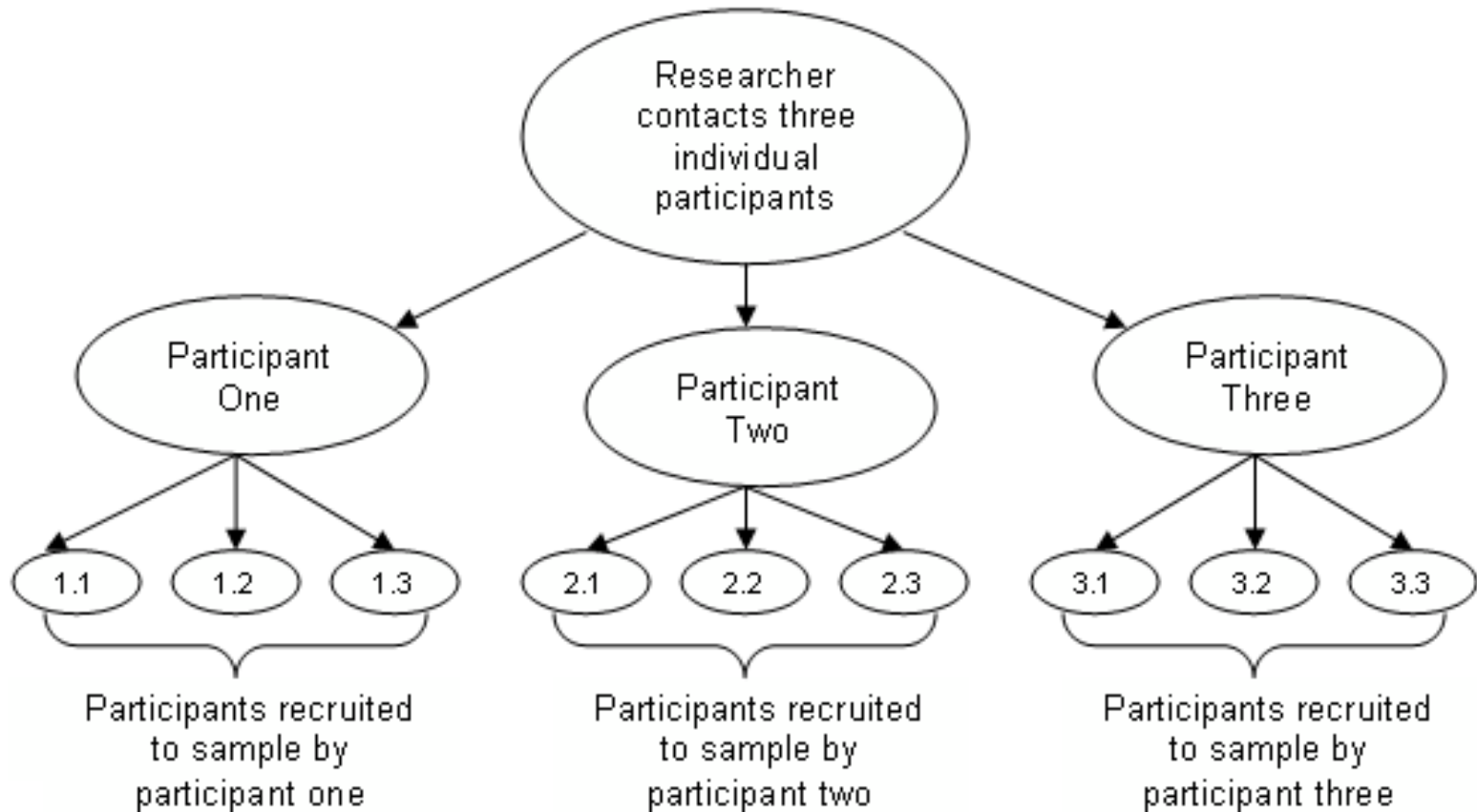
Purposive Sampling

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



Evaluating Samples

- A perfectly unbiased sample → very representative of the population
- Randomisation from the population with *all members* of the population featured.
- Completed responses from all Ss
- Perfect samples are rare 😞
- Two sources of error:
 - Sampling frame used
 - Poor response rates

Sampling Frame

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

Response Rate

- Percentage of those sampled that complete the survey
- Low response rate may indicate sampling bias problems
- Usually lower for mail surveys, higher for telephone interviews...



Overall, how do you feel about your future?

- very optimistic
- somewhat optimistic
- somewhat pessimistic
- very pessimistic

Any questions??? 😊