Quantitative research

Purpose:

- Identify patterns/relationships
- Test/refine theories
- Make predictions

Sampling: probability

- **Are representative**
- **Are generalisable**
- Random: eliminates bias
- Larger sample

Types:

1. **simple random sampling**
- each person has an equal and independent chance of being selected
2. **systematic sampling**
- example: every 10th person gets chosen
- can be bias (sub-groups aren't selected)
3. **stratified random sampling**
- dividing the population into groups-> choose a percentage of that group
4. **cluster sampling**
- whole population -> groups -> use other methods to select

measurement scales

1. **variables**
- independent (IV): stays the same
- dependent (DV): depends on the independent variable
- confounders
2. **measurements**
- **categorical**
    a. **nominal**: **normal categories**
        ▪ gender, race, yes/no questions
    b. **ordinal**: **in order**, ranking, preference
        ▪ age, education, income, agree -> disagree, likert scale, disability
- **continuous**: **scale**, can be converted into categorical
    a. **interval**: no true 0, **can't compare ratios**
        ▪ temperature, IQ, year
    b. **ratio**: true 0, can compare ratios, no negatives amount
        ▪ height, weight, number of…, heart rate, blood pressure, how many times..

Validity: measure what it's supposed to measure

- **internal**
    a. the study can control confounding/bias/errors
    b. the results are correct
- **external**
    a. the findings can be generalised to the wider population