

## Psychological Research

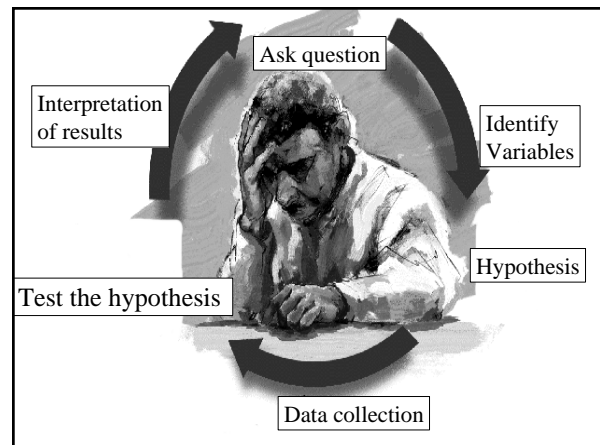
## Scientific Method



### Falsifiable theories:

if a theory is wrong it can be demonstrated to be wrong

## Steps in conducting scientific research



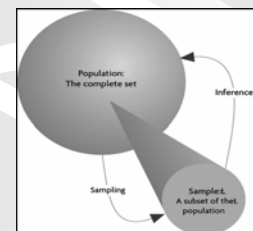
### Step 3. Formulating Hypothesis

#### Hypothesis:

statement (in declarative form)  
that expresses the relationship  
between variables & makes  
*testable predictions*

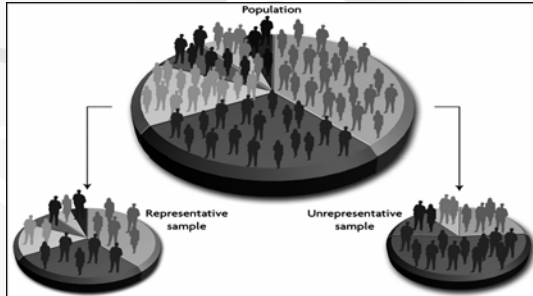
### Sample: a subset of population

- How many people are in the sample?
- Who is in the sample?



### Sample:

- Representative - closely resembles the entire population



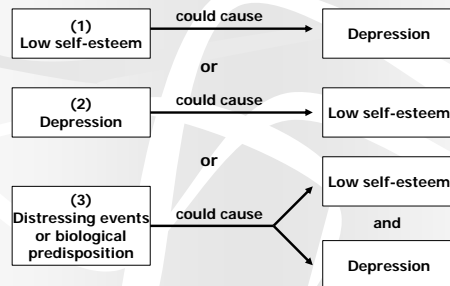
### Research Designs

1. Naturalistic Observation
2. Case Studies
3. Surveys
4. Experiments - establishes cause & effect link (due to control)

### Correlational Studies:

Correlation Coefficient - a measure of the relationship between two variables

### Three Possible Cause-Effect Relationships



### Step 5. Testing the hypothesis

- Evaluating evidence
- Quantification of data
- Statistics

### Step 6. Interpretation of results

1. Make knowledge public
2. Reconsidering the theory

## Ethical Considerations in Research

- Deception
  - Milgram study (1963)
- Informed Consent form
  - Nuremberg Tribunals