



Psychology 309
Statistical-Experimental I




Myth #1


"We know it already. It's common sense"



Myth #2


"You never *prove* anything"






Myth #3

“You’re just *observing* people.
It’s not scientific”




Myth #4

“The only people you study
are college students”




Myth #5

“The only effects you find are in the
laboratory, not in the real world”



Myth #6

“You have several theories explaining the same behavior. Which one is right?”



Myth #7

“All you do is run mice in mazes”



Types of psychology (It's not all therapy!)

■ Counseling	■ Biological
■ Clinical	■ Evolutionary
■ Social	■ Family studies
■ Cognitive	■ School psychology
■ Developmental	■ Law and Forensic

Anything related to human thought and behavior is covered in a subfield.
Take your pick!




Goals of Behavioral Research



Goals and Designs

- Describing behavior
 - Descriptive design
 - How many were there?
- Explaining/Predicting behavior
 - Correlational or experimental design
 - Why did this happen?
- Solving a societal problem
 - Observational or correlational design
 - How can we stop it from happening again?




Basic vs. Applied Research

- Basic research
 - Goal is to understand and explain behavior
- Applied research
 - Goal is to find solutions to problems




Research Designs




Descriptive Designs

- Research that describes the behavior, thoughts, or feelings of a particular group of people
- Best used when you're only interested in how frequent a behavior occurs
- Often used as preliminary data for a research program




Examples of Descriptive Designs

- Prevalence of anxiety counseling after 9-11
- Prevalence of eating disorders, binge drinking on college campuses




Correlational Designs

- Research that examines the relation among variables
- Best used when you can't manipulate particular variables in the lab, or if you are interested in the unique relation between two variables
- Often used with survey data




Examples of Correlational Designs

- Association between regional temperature and violence
- Association between GPA and job performance




Experimental Designs

- Research that examines whether manipulated changes in one variable lead to changes in another variable of interest
- Best used when you are interested in determining the cause of a behavior
- Usually conducted in a controlled lab setting




Examples of Experimental Designs

- Self-esteem caused by social inclusion
- Stress caused by uncertainty



Quasi-experimental Designs

- Research that examines the effects a variable that occurs naturally
- Best used when the causal variable cannot be manipulated for practical or ethical reasons
- Generally used in health, career, and educational domains



Examples of Quasi-experimental Designs

- Impact of employment on academic achievement
- Impact of childhood abuse on depression
