

# Scientific Research in Psychology



# Purpose of Research in Psychology

- Psychology as a science uses observation to collect data to answer questions
- Psychological research used to further our knowledge of the world and then make predictions about future events and behaviors
- Uses different types of methods in order to collect, organize, and understand data
  - Basic Research
  - Applied Research
  - Program evaluation



# Basic Research

- Psychology basic research is done for the sake of increasing knowledge about a certain topic
  - Knowledge for knowledge's sake
- Not meant for immediate application
  - Basic research results in collections of data and observation notes
  - Basic research studies and used by others as base for application and to find solutions



# Basic Research Example

- International Center for Media and Public Agenda (ICMPA, 2010)
- Study aimed at finding out the effects of cell phone addiction on students at the University of Maryland
  - Students recorded observations of effects of one week without access to cell phone
    - Students commonly used word “addiction” to describe withdrawal symptoms



# Applied Research

- Applied Research in psychology is geared towards finding solutions to different problems or questions
- Working towards improving society and helping individual's mental health



# Applied Research Example

- Ex. Changing the University of Maryland study on cell phone addiction to research effects of cell phone usage in order to try to increase social interaction among students
  - Example Possible incomes
    - Student services releases informational pamphlet about the results to educate students about the effects
    - University requires freshmen to attend hour long course on harmful effects of cell phones
    - University offers more social events to try to get students more socially engaged



# Program Evaluation

- In a program evaluation psychologists examine existing programs to determine effectiveness.
- Through Evaluation they can determine if the program's goals are being met, and if there might be better ways of achieving those goals.



# Example Program Evaluation

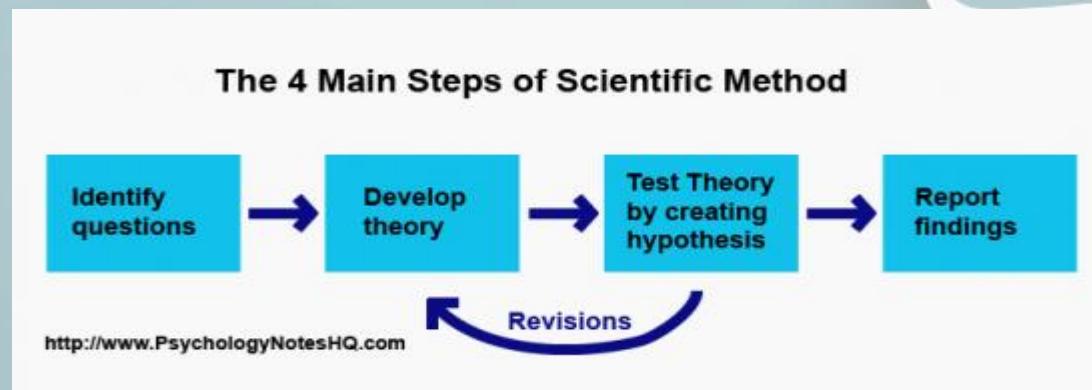
- Ex. After years of having the cell phone policy in place the University of Maryland conducts a Program Evaluation to find out the effectiveness of the program
  - Example Possible incomes
    - They find the program is working fine and only make minor adjustments
    - The program is not effective at all so they decide to do a new study to form the base of a new program
    - They find problems and readjust the program to address the problems and be more effective





# The Use of the Scientific Method

- As a science psychology relies on an established system to find results
  - Allows for consistency in how results are gained and recorded
- Tests must be testable and falsifiable
  - Can actually test and find facts to support your research
  - Must also have the possibility to be proven false. Your test either provides results supporting your theory or it fails to.



# The Scientific Method Explained

- All research is based around a Hypothesis
  - What a scientist theorizes will happen
- Research methods must be carefully designed to collect data
  - Controls are used to eliminate factors that might disrupt data
- Once the experiment is done analyze the collected data to determine scientific and mathematical significance
- Report findings so that other psychologists can review work. If experiment did not produce expected results either re-design experiment or report why.

