

# One Group Posttest Design

X O →



Improved by adding Control Group

X<sub>1</sub> O  
X<sub>2</sub> O



Random assignment needed for real improvement and to avoid selection threats:  
Posttest only control group design

Improved by adding pretest

O X O



Need randomized control group to combat testing  
And maturation threats

O X<sub>1</sub> O  
O X<sub>2</sub> O



Random assignment and control groups help to combat threats to validity  
Experimental Design: Randomized pretest/posttest control group Design