experimental_design

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good science - formulate the question, identify sources of error, design the data collection, all before collectiong any data.

be careful of p hacking

confounder: an"extraeneous" variable that may affect the relationship between the dependent and indpendent variables we are studying.

control: where the dependent variable is measured, even though the independent variable is not being manipulated

randomising: if there is a confounding variable that may affect your experiment (like age) then randomising your data before splitting into a control and study group hopefully spreads that factor evenly accross the control and study group.

> i think this only works if the independent variable is one that you can actually alter yourself - eg in a drug trial the independent variable is if you give them the drug or not. if you are comparing literacy to shoe size then this doesnt work, but i dont know how to describe why

blinding: removing effects related to human subjects know which group they are in; placebo etc

replication: can measure the variablility of your data