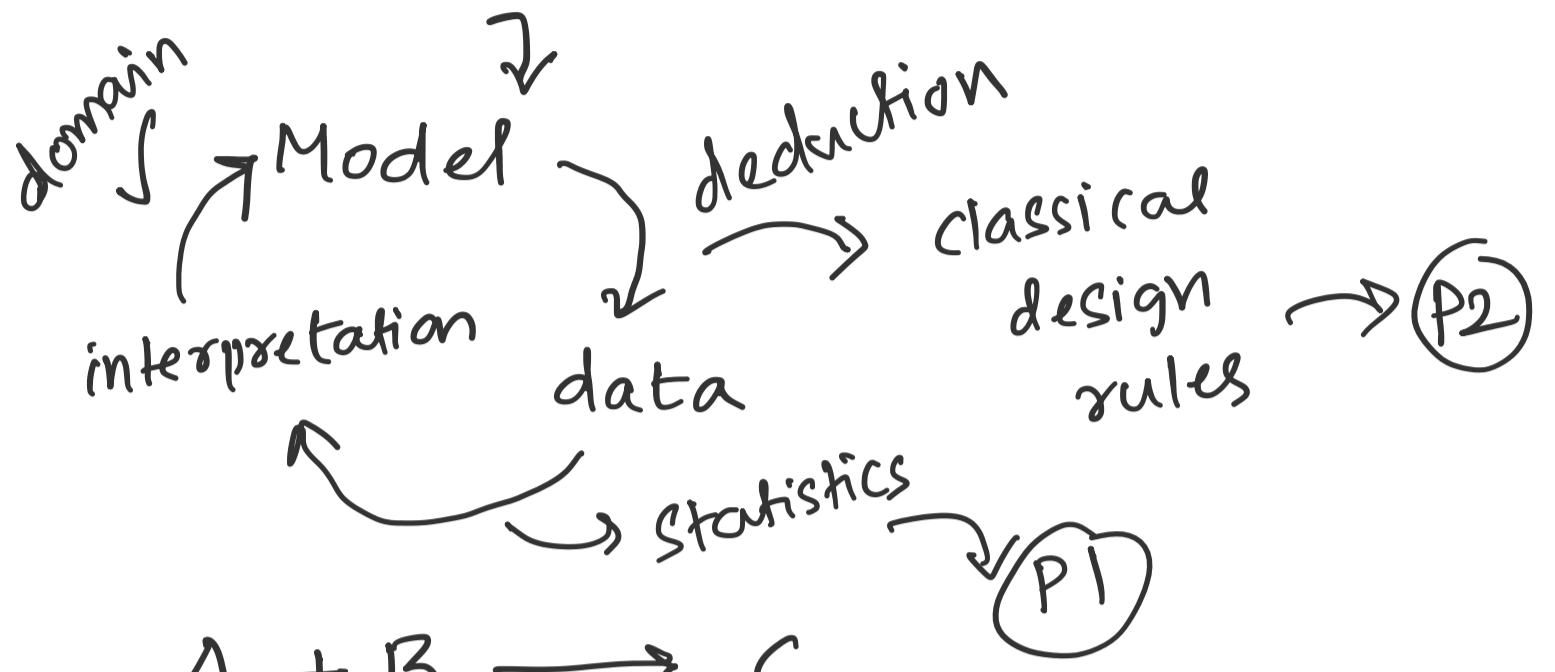
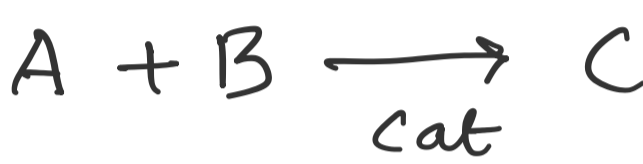


# Introduction to DOE

- generating, testing, accelerating new ideas
- iterative :



Model :



$$y(C) > 90\%$$

deduction: Temperature? → Not prop rxn possible  
 → constraints that are physical  
 $T = 600^\circ C$

data : colourless, odourless sample <5% of C

intrepretation :

- yield is very low
- expertise / literature on the catalyst

data → intrepretation is done on numbers  
 ↓  
 Statistical tools

complexity

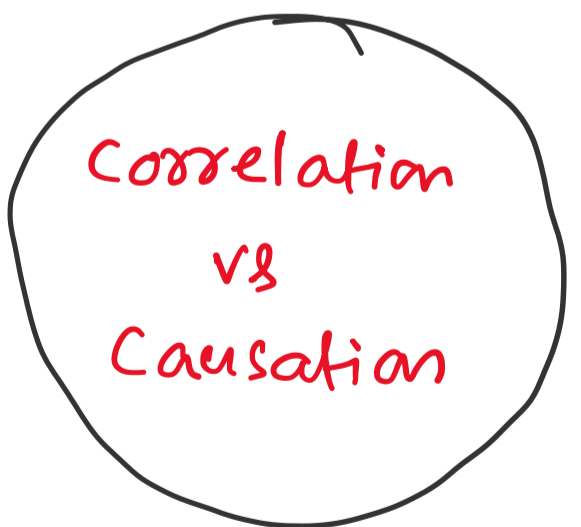


- mutiple variables that influence output we measure

experimental error



- "known error"
- Stochastic models



- interaction effects

- Ronald A Fisher, classic DOE  
 "student" (t-distribution)