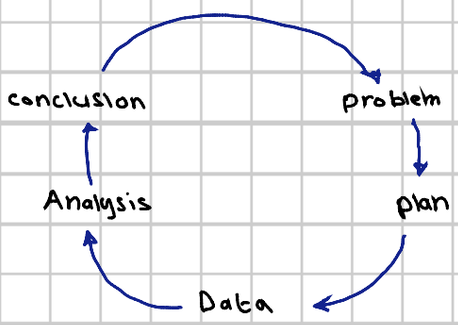
stastics :-

1] collection, organisation / summarisation and analysis of data
2] drawing inferences (conclusions)

fields of Statistics

1] pharmacy
2] medicine → Biostatistics
3] education
4] psychology
5] business

PPDAC stastical cycle



issues of pharmaceutical industry

1] experiment design
2] analysis of drug trials
3] commercialisation of medicine

Branches of statistics

1] descriptive statistics
2] inferential statistics → draw conclusion

sample should be

1] representative
2] unbiased

parameter

descriptive measure that describe a population

statistics

descriptive measure that describe a sample

why we study a sample rather than a population ?

1] less cost
2] preservation from loss
3] save time
4] more accuracy
5] population is so huge

Choosing sample methods

1] simple random sample
   - simplest type of scientific samples
   - chosen randomly and entirely by chance
2] stratified sample
   - divide population into seperate groups with similar characteristics
   - select randomy from each group
3] cluster sample
4] systematic sample

two kinds of numbers in statistics

1] generated from measurements ex: temperature
2] generated from counting ex: # of patients discharged from hospital

sources of data

1] surveys
2] experiments
3] routinely kept records
4] external resources

types of variables

1] Qualitative ex: blood groups
2] Quantitative ex: age

types of statistical studies

1] observational
2] experimental → intervention