# HW4\_Liang\_Dan

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#### Problem 3

- 1. show comparison from different aspects.
- 2. show causality, mechanism. explanation, and systematic structure. Different factors could be
- 3. connected to explain one phenomena.
- 4. show multivariate data. It may uncover unexpected relationships with more features.
- 5. integrate different evidence to a graphic.
- 6. describe and document the evidence. A graphic should tell a complete story by itself.
- 7. present graphics with high-quality conten

#### Problem 4

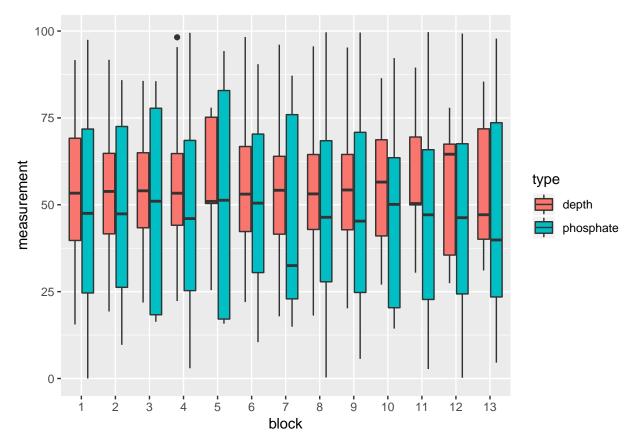
#### 1.

##	block	depth	phosphate
##	Min. : 1	Min. :15.56	Min. : 0.01512
##	1st Qu.: 4	1st Qu.:41.07	1st Qu.:22.56107
##	Median : 7	Median :52.59	Median :47.59445
##	Mean : 7	Mean :54.27	Mean :47.83510
##	3rd Qu.:10	3rd Qu.:67.28	3rd Qu.:71.81078
##	Max. :13	Max. :98.29	Max. :99.69468

#### 2.

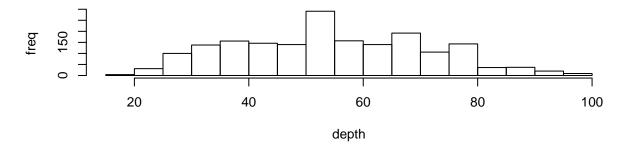
The factors below will be presented: 1.block: groups of experiment trials 2.depth: one measurement 3.phosphate: one measurement

### 3.



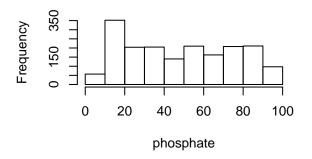
## Warning in cbind(a\$depth, b\$phosphate): number of rows of result is not a
## multiple of vector length (arg 2)

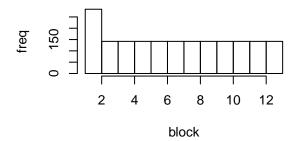
### Hist of depth



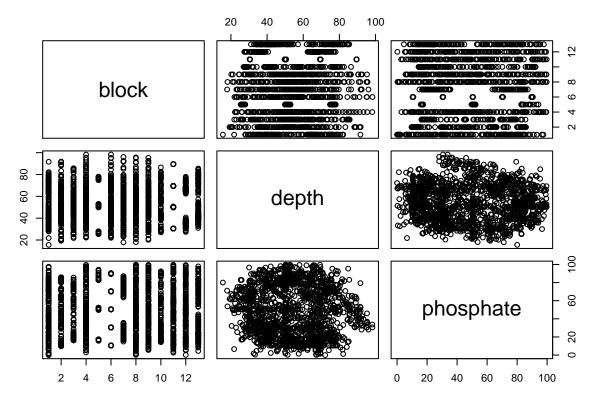
### Hist of phosphate

#### Hist of block





4.



The block is not an output of an experiment, it is how manipulate the experiment. Two measures follow normal distribution.

## Problem 5

