

# 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

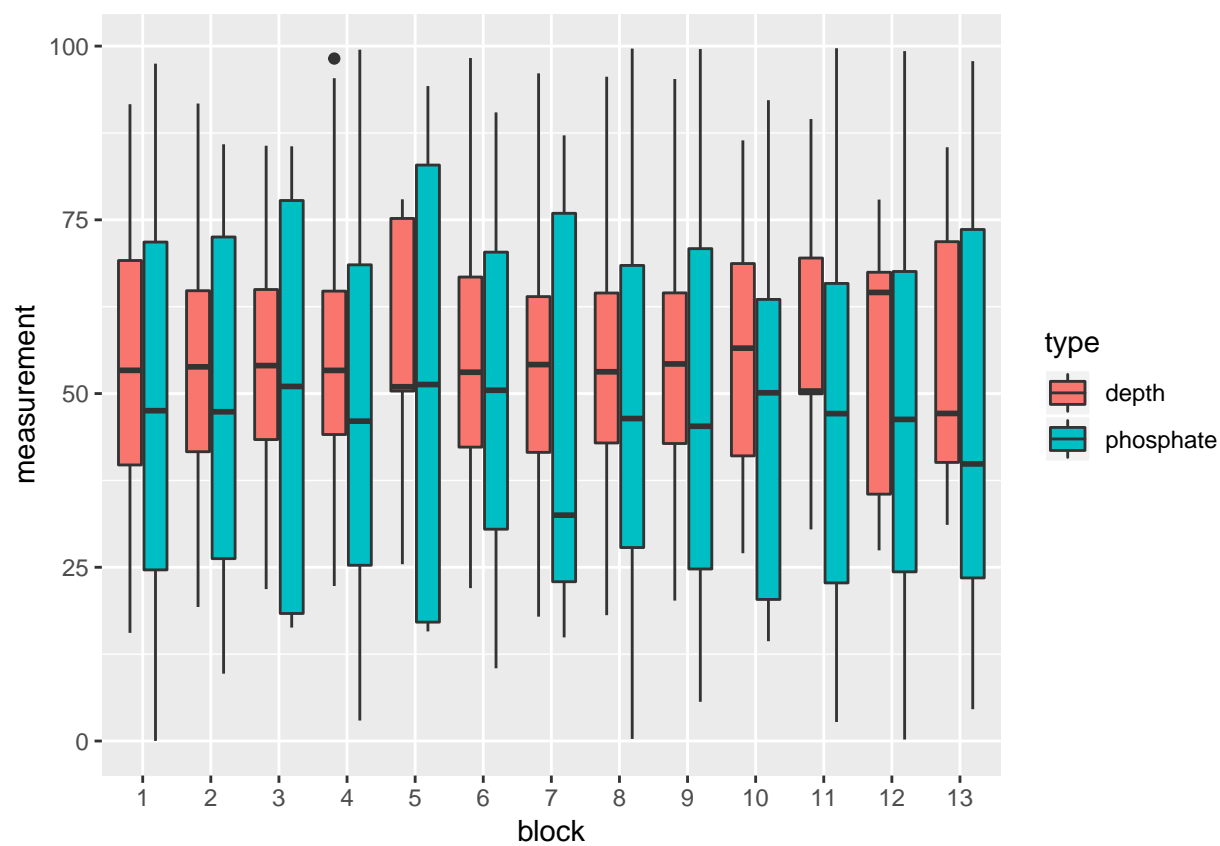
1.

##	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

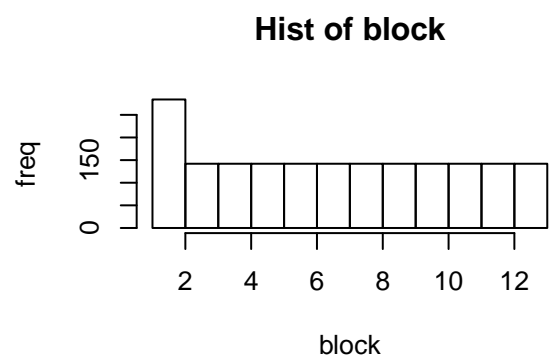
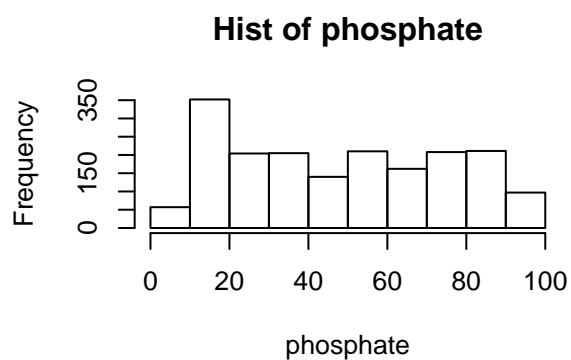
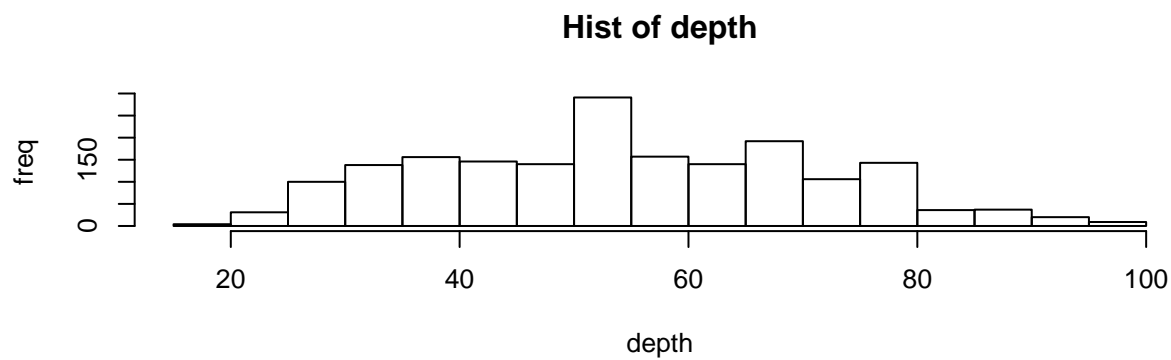
2.

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

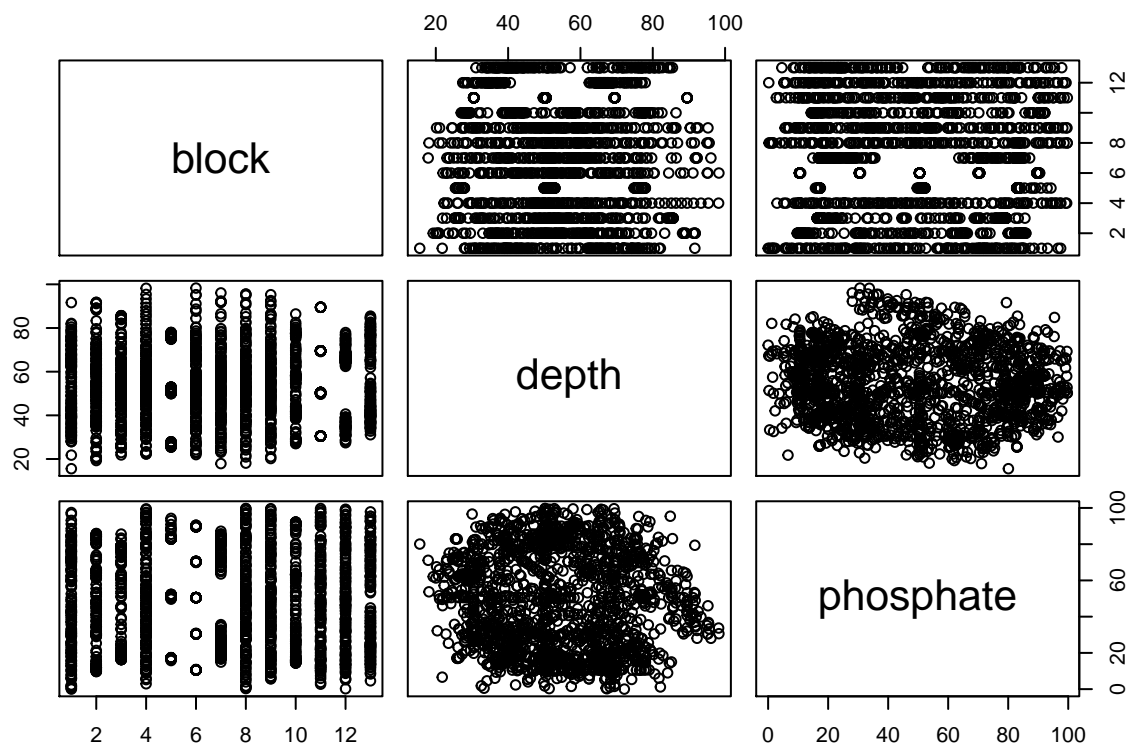
3.



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



4.



5

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

## Problem 5

