

# Homework 10

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## 15.8

**a**

This study is mixed experimental and observational.

A randomization of treatments (standard or computer based curriculum) does occur. However, the choice of which school is not randomized.

**b**

- Experimental factor: Type of curriculum;
- Levels: Standard or computer based.
- observational factor: schools;
- Levels: school no.1, 2 and 3

There are 6 factor-level combinations:

- School1 +standard;
- School 1 +computer based;
- School2 +standard;
- School 2 +computer based;
- School3 +standard;
- School 3 +computer based.

**c**

Completely randomized design

**d**

The basic unit is each of the 24-student sections

## 15.10

**a**

Mixed experimental and observational.

The color of paper is randomized but the nature of parking lots is just observed.

**b**

- Experimental factor: Color of the paper
- Levels: Blue, green, orange
- observational factor: What parking lot the papers are distributed in;
- Levels: Parking lot a, b, c, d.

There are 12 factor-level combinations:

- Parking lot a+ Blue;
- Parking lot b+ Blue;
- Parking lot c+ Blue;

- Parking lot d+ Blue;
- Parking lot a+ Orange;
- Parking lot b+ Orange;
- Parking lot c+ Orange;
- Parking lot d+ Orange;
- Parking lot a+ Green;
- Parking lot b+ Green;
- Parking lot c+ Green;
- Parking lot d+ Green;

## **c**

Repeated measures design

## **d**

The basic unit is the papers of the same color distributed in each of the parking lots.