

8.1: Repeated Measures Design

Let's use the exact same toy example from the previous chapter, but let's convert it to a repeated measures design.

Last time, we imagined we had some data in three groups, A, B, and C. The data looked like this:

```
scores <- c(20,11,2,6,2,7,2,11,2)
groups <- as.character(rep(c("A","B","C"), each=3))
df<-data.frame(groups,scores)
knitr::kable(df)
```

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groups	scores
A	20
A	11
A	2
B	6
B	2
B	7
C	2
C	11
C	2

The above table represents a between-subject design where each score involves a unique subject.

Let's change things up a tiny bit, and imagine we only had 3 subjects in total in the experiment. And, that each subject contributed data to the three levels of the independent variable, A, B, and C. Before we called the IV `groups`, because there were different groups of subjects. Let's change that to `conditions`, because now the same group of subjects participates in all three conditions. Here's the new table for a within-subjects (repeated measures) version of this experiment:

```
scores <- c(20,11,2,6,2,7,2,11,2)
conditions <- as.character(rep(c("A","B","C"), each=3))
subjects <- rep(1:3,3)
df<-data.frame(subjects,conditions,scores)
knitr::kable(df)
```

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subjects	conditions	scores
1	A	20
2	A	11
3	A	2
1	B	6
2	B	2
3	B	7
1	C	2

subjects		conditions	scores
2		C	11
3		C	2

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