Statistical analysis of behavioral data

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RMarkdown+Latex

This is simple an R Markdown document to show MPIThemes features. use # sign to define chapter. For definition sub chapter add ## to first line and add name of sub chapter.

Code Embedding

```
     speed           dist       
 Min.   : 4.0   Min.   :  2.00  
 1st Qu.:12.0   1st Qu.: 26.00  
 Median :15.0   Median : 36.00  
 Mean   :15.4   Mean   : 42.98  
 3rd Qu.:19.0   3rd Qu.: 56.00  
 Max.   :25.0   Max.   :120.00  
```

We can run inline R code `2^10`= 1024

Markdown

In RMarkdown we can use markdown syntax, such as unordered list items

- item
- item
  - more item

Or use block quotes are written after >, e.g.,

> To be, or not to be, that is the question!

Latex

We can easily write math expressions by latex syntax. Inline LateX equations can be written in a pair of dollar signs

$$f\left(k\right) = \binom{n}{k} p^k \left(1-p\right)^{n-k}$$

plot

By using ggplot package, we can

```
ggplot(iris, aes(Sepal.Length, Petal.Length)) +
  labs(subtitle="Iris Data: Sepal Length vs Petal Length",
       title="Bubble chart") +
  geom_jitter(aes(col=Species, size=Sepal.Width)) +
  geom_smooth(aes(col=Species), method="lm", se=F)+
  theme_bw()+
  scale_color_mpi()
```