

SOC 4930/5050: Week 11 R Functions

Christopher Prener, Ph.D.

November 6th, 2017

Packages

- base
- ggplot2
- Hmisc
- psych
- pwr
- stargazer
- stats

Creating a Vector

`base::c(element, element, element)`

Creating a Matrix

`base::as.matrix(objectName)`

Missing Data

Test if Missing

`base::is.na(objectName)`

Remove All Missing Data

`stats::na.omit(objectName)`

Pearson's r *Basic Approach*

```
stats::cor(dataFrame, use, method = "pearson")
```

Hmisc Approach

```
Hmisc::rcorr(matrix, type = "pearson")
```

Full Table Approach

```
corrTable(dataFrame, coef = "pearson", listwise = TRUE,
  round = 3, pStar = 3, ...)
```

Full Table to L^AT_EX

```
stargazer::stargazer(outputObject, title = "title text",
  summary = FALSE)
```

*Scatterplots**Basic Scatterplot*

```
ggplot2::geom_point(mapping = aes(x = xvar, y = yvar))
```

Scatterplot with Grouping Variable

```
ggplot2::geom_point(mapping = aes(x = xvar, y = yvar,
  color = groupVar))
```

Scatterplot with Facet

```
ggplot2::facet_grid(. ~ facetVar)
```

Scatterplot with Smoothed Line

```
ggplot2::geom_smooth(method, mapping = aes(color = "method"))
```

Scatterplot with Smoothed Line by Grouping Variable

```
ggplot2::geom_smooth(method, mapping = aes(color = groupVar,  
  linetype = groupVar))
```

Sample Size Estimate

```
pwr::pwr.r.test(r = rVal, sig.level = .05, power = powerVal,  
  alternative = "two.sided")
```

Cronbach's alpha

```
psych::alpha(dataFrame, check.keys = FALSE)
```