Advanced Psychological Statistics
PSYCH-UA.11
Department of Psychology
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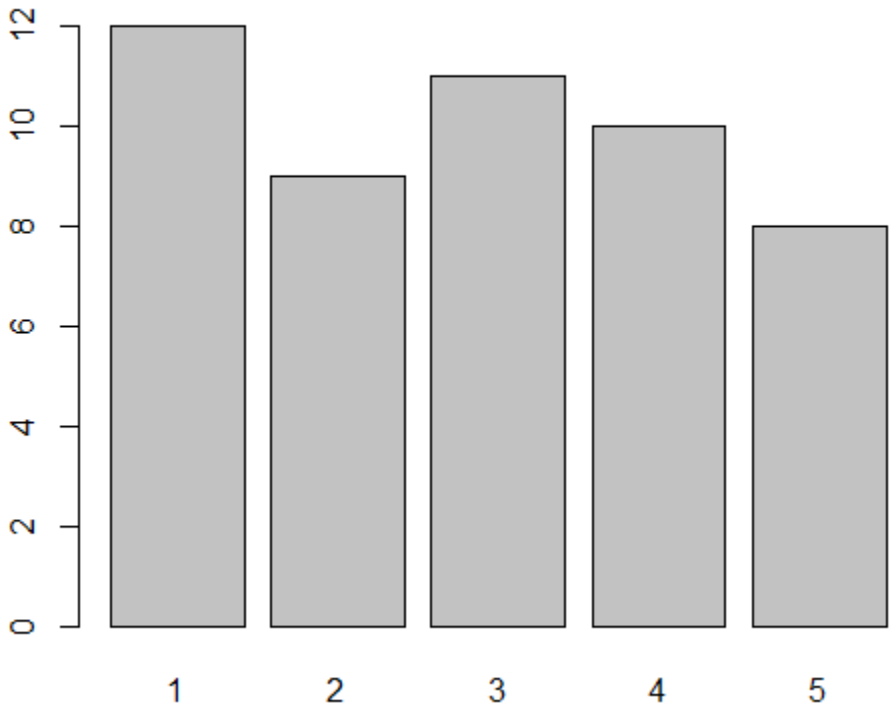
barplot()

The barplot() command is used to create a plot that lists items along the x-axis and the frequency (of appearance) of each x-axis item along the y-axis (height). The command is

barplot(<data set name>)

so if a group of data was stored in a variable called cat_1, the command would be
> barplot(cat_1) and the result might look like -



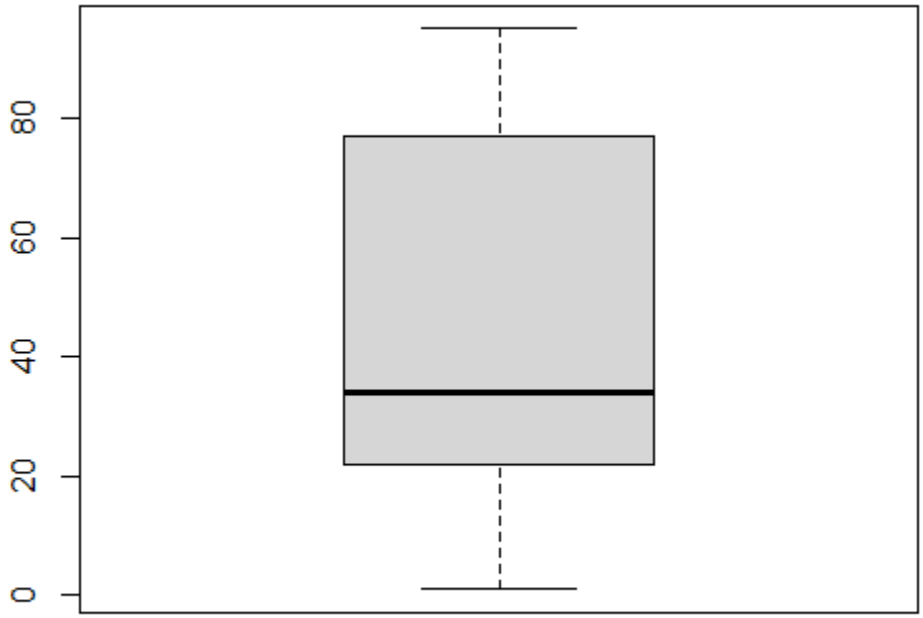
Note – if the data (used with the barplot() command isn't grouped – that is x number of the first item, y number of the second item…) try adding the table command on top of the barplot() command barplot(table(<data set name>)

boxplot()

The boxplot() command is used to create a "box and whiskers" plot that lists the median, range, 25 percentile value and 75th percentile value and shows the dispersion of the values. The command is

boxplot(<data set name>)

so if a group of data was stored in a variable called cat_1, the command would be
> boxplot(cat_1) and the result might look like -



Creating a set

> set1 = c(1,2,3,4,5)

The “c” stands for combine – it combines the elements inside the parentheses and creates a vector called, here “set1”. (Note that each element in the set is separated by a comma.)

mean

> mean(set1)

To assign the mean to a new variable set1.mean = mean(set1)

To see contents of set1.mean do -

> set1.mean or print(set1.mean)

median

> median(set1)

To assign the median to a new variable set1.median = median (set1)

To see contents of set1.median do -

> set1.median or print(set1.median)

Mode

Example

```
set1 = c(1,2,3,4,4,5)
set1_unique = unique(set1)
set1_tabled = tabulate(match(set1, set1_unique))
set1_unique[set1_tabled == max(set1_tabled)]
```

(Note: R does not include the command "mode". The above commands compute a mode from a data set)

sample.int

Sample.int is a command that returns a number or numbers, drawn randomly from a range. It takes arguments – different values for range and and the number of items returned

Example

sample.int(10, 9) returns 9 numbers randomly drawn from 1 to 10
sample.int(5, 3) returns 3 numbers randomly drawn from 1 to 5
sample.int(5, 100, replace = TRUE) returns 100 numbers randomly drawn from 1 to 5.

(In order to have more numbers returned than the range indicated in the first number, you need "replace = TRUE" – (not the capital letters). The argument "replace = TRUE" allows the command "sample.int" to drawn from the vector – 1 through 5 here and then return the selection drawn after it has been pulled.)

seq

The command seq() returns a sequence of numbers from the first number, to the second by increments of the third number

Example

seq(0, 100, by = 5) returns numbers from 0 to 100 by steps of 5
seq(100, 0, by = 10) returns numbers from 100 to 0 by steps of 10