Cristina Moquete
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Unit 1, Assignment 1 (AS1): Terms, Scales, Notation & Summation

Statistical Notation and Computation of Sums

The following is statistical notation with which you should become familiar:

μ = the mean of a population

M = the mean of a sample

N = the number of scores in a population

n = the number of scores in a sample

$\sum$ = summation sign (to sum)

X = raw score

$\sum X$ = sum the scores

$(\sum X)^2$ = sum the scores and then square the sum

$\sum X^2$ = square each score and then add up the squared scores.

Let us take a look at a set of scores from a population:

X
3
4
1
5

You must be able to calculate the following terms from the data set above: N, $\sum X$, $(\sum X)^2$, $\sum X^2$

What is N for the above set of data?

N =4, because there is four observations in the data set.

What is $\sum X$?

$\sum X = 13$. The sum of observations is equal to 13.

What is $(\sum X)^2$?

The $\sum X$ is equal to 13 so the square root of $\sum X$ is equal to 169.

What is $\sum X^2$?

$\sum X^2$ to calculate this find the square root of every single value from the data set, so the 3^2 is 9, 4^2 is 16, 1^2 is 1 and 5^2 is 25 so the sum of all these value is equal to 51