

## Student t distribution

In z stats when we perform any analysis using z-score  
we require  $\sigma$  (population standard deviation)  $\rightarrow$  is already known

How do we perform any analysis when we don't know  
the population standard deviation?



Student's t distribution

t stats

$$Z = \frac{\bar{x} - \mu}{\sigma / \sqrt{n}}$$

Z table

$$t = \frac{\bar{x} - \mu}{s / \sqrt{n}}$$

S = Sample standard deviation

t table  $\Rightarrow$  t test

Degree of freedom

$$\text{dof} = n - 1 = 3 - 1 = \underline{\underline{2}}$$

3 people

