**T-TEST FOR INDEPENDENT SAMPLES**

**A. Difference between the independent and dependent samples**

- Independent samples: Independent samples result from independent persons and measurements.

- Dependent samples: the measured values are available in pairs. The pairs result e.g from repeated measurements with the same persons.

**B. Scenario**

A black text on a white background

AI-generated content may be incorrect.

- Step 1: Define the null and alternative hypothesis

+ Null hypothese (H0): =

+ Alternative hypothesis (H1):  ≠

- Step 2: State the alpha level -> α = 0.05

- Step 3: Calculate degrees of freedom:

df = n1 + n2 – 2= 25 + 20 – 2 = 43

A diagram of a normal distribution

AI-generated content may be incorrect.- Step 4: State Decision Rule:

- Step 5: Calculate Test statistic