The logic of statistical significance
Tests for statistical significance are used to estimate the probability that a relationship observed in the data occurred only by chance: the probability that the variables in reality are unrelated in the population.

If that chance is small enough (usually: smaller than 5%) the relationship is called 'statistically significant'.

Significance depends on:
the strength of the relationship as assessed by a measure of association
the sample size
the chosen level of significance

Establish the level of significance
Most researchers select a \( p < .05 \) level of significance.

This means that they are willing to accept a probability of 5% of assuming a relationship between two variables exists when it in reality does not.