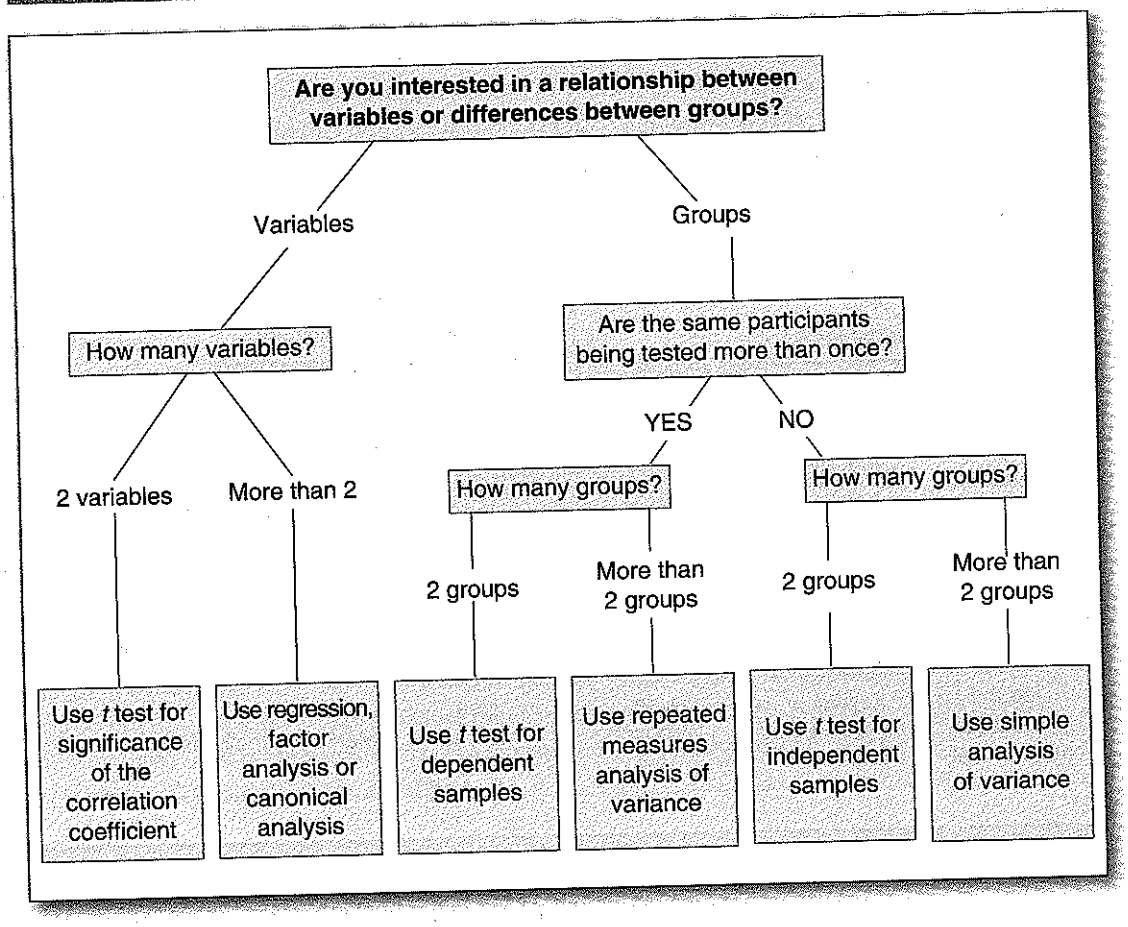
Figure 3.11 Which Parametric Statistical Test Should You Use?



deviation indicates that the data are spread out over a large range of values. The resulting new z-score distribution's mean = 0, and its standard deviation = 1.00. If the z score is more than 3 standard deviations from the mean, we would say that the observed z score is very improbable and accordingly the test result is statistically significant. As Field (2009, p. 26) reminded us, important z values are +1.96, because it cuts off the top 2.5% of cases, and −1.96, because it cuts off the bottom 2.5% of the cases. This corresponds to the common significance level or p value of .05. As discussed above, this means that 95% of cases are between −1.96 and +1.96 z scores, or 2 standard deviations from the mean.

The second important benchmark is z scores −2.58 and +2.58, or 3 standard deviations from the mean, between which 99% of all cases would occur within a normal distribution. This corresponds to a significance level of .01. The third important