A B S T R A C T

The analysis of data from experimental designs is often hampered by the lack of more than one procedure available for the analysis, especially when that procedure is based on assumptions which do not apply in the situation at hand. In this paper, which consists of three chapters, an alternative procedure is discussed. This procedure "THE USE OF RANKS AS A TRANSFORMATION," first replaces the data with their ranks (which are usually assigned in one of the ways given in the introduction), and then employs the usual parametric methods, but computed on the ranks instead of the data.

In Chapter I, some rank transformation tests which are a special class of nonparametric methods resulting from the rank transformation approach are given along with some simple extensions. The distribution, properties and large sample approximations of the rank transformation test statistic given in Chapter I are presented in Chapter 2 along with some justification for their use. Chapter 3 contains some of the more popular multiple comparisons procedures carried out by Cramer and Swanson (4).