

## DECISION SCIENCES INSTITUTE

Linear vs Quadratic, SPSS™ vs SAS™ in Predictive Discriminant Analysis

### ABSTRACT

Although a popular multivariate technique in medical and educational research to predict group membership, Predictive Discriminant Analysis (PDA) is seldom used in Management research. Upon conducting an exhaustive search of PDA usage in Management journals, the authors discovered several inconsistencies in terminologies, discussions of statistical assumptions, and in the choice of linear/quadratic rule. In light of these findings, we provide researchers with a thorough understanding of when to use PDA, assumptions to check and discuss, the appropriate rule to invoke, and the correct analysis of results. We also make a case for using SAS™ rather than SPSS™ when invoking the quadratic rule.

KEYWORDS: Predictive Discriminant Analysis, Linear Discriminant Analysis, Quadratic Discriminant Analysis, SPSS™, SAS™