Level, shape and scatter are three characteristics of profiles that determine the specific focus of profile analysis procedures. In this study, three methods of profile analysis that emphasize each of these characteristics are analyzed: cluster analysis (which distinguishes profiles by level), modal profile analysis (which distinguishes profiles by shape) and configural frequency analysis (which distinguishes profiles by scatter). Within a group of college student’s struggling with mathematics, these three profile analysis methods are used to form three distinct subtype grouping schemes. The profile subgroups resulting from each of the three profile analysis methods are compared to previously identified clinical subgroups. Results indicate that the best method to correspond with clinical subgroups is cluster analysis, which emphasizes level.