

1. Customized maximum likelihood (CML) methods for analysis differ from “canned” standard methods in the ways of specificity, ease of comparison between models, and efficiency of analysis. Whereas CML methods are tailored to the data to be analyzed and thus more representative of the underlying phenomena, so-called “canned” methods are standardized to be applicable across datasets and are often easier to estimate parameters with. The standardization of the “canned” methods also makes comparison between different models easier than using a CML method. Lastly, standard methods often use more efficient algorithms for optimization than those available for a CML, tend to be faster and less prone to error than other methods.
2. The four key assumptions of the general linear modeling approach are  
independence of observed values,  
normality of residuals for observed values,  
homoscedasticity (constant variance) of values,  
and that any covariate factors are measured without error.
3. The assumption of normality in a general linear model may be met by the normality of the residuals from the variables, not the variables themselves. Because of this criterium even in the case of non-normally distributed response variables values, this will be true.