This paper attempts to determine the relative inter-informant reliability of four methods for collecting judged or perceived similarity data for items within a homogeneous semantic domain. Data were collected on the judged similarity of animals from four groups of undergraduates. The methods included a computerized two-dimensional Euclidian mapping task (Freeman, 1994), two versions of a paired comparison rating task, and a triadic comparison task (Weller & Romney, 1988). In addition to standard measures of reliability based on inter-informant correlations, we employed Multiple Correspondence Analysis (Gifi, 1990; Weller & Romney 1990) to provide a more detailed examination of the methods. Throughout the various analyses, the paired comparison rating tasks proved to be the most reliable and the mapping task produced the least reliable results.