Controlling data quality is highly important in any study based on observational methodology and it comprises three key aspects: reliability, accuracy and validity (which may be addressed together in a generalizability study). There are at least three ways of addressing the reliability of observational data: 1) coefficient of concordance between the observer’s judgments (the agreement between them), which refers to the observations made by the different observers at a given point in time; 2) an observational measure may be considered as a special case of a standardised psychological test, and thus we can use the definitions of reliability associated with classical psychometric theory, i.e. the correlation coefficient; and 3) an observational measure may yield data under the influence of a given number of different aspects of an observational situation (different observers, different occasions, different ways of recording, different recording instruments), including the individual differences between participants. This third aspect concerns the GT developed by Cronbach, Gleser, Nanda & Rajaratnam (1972).

One good way of conducting the whole recording process, data quality control and data analysis is to use the data output from The Observer and Match Vision Studio software, since the output is generated via an Excel spreadsheet. A further advantage is that the data can then be readily transformed from one format to another. Thus, this source of data may be used directly for all the calculations, regardless of whether they concern reliability or data analysis. For example, they may be transformed into the CSV format and analysed using Theme.