**Sequence analysis as a graphical tool for investigating call record data**

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In recent years, analysis of call record data has found increasing attention. Survey agencies hope a better understanding of such data may inform improved interviewer calling practices, identify more difficult cases and unusual interviewer behaviour earlier on in the data collection procedure and may provide strategies for improved nonresponse adjustment methods. Although survey researchers have become increasingly interested in understanding and improving the process of data collection, to date, analysis of interviewer calling behaviour is still limited. It is often not clear, how best to analyse such data, in particular since call data can be large and may exhibit complex hierarchical and time-dependent data structures.

This paper introduces sequence analysis as a simple tool for investigating call record data to better understand and improve survey processes and designs with practical guidelines for survey managers. We will also cover the use of sequence analysis for longitudinal surveys. Sequence analysis offers a nice way of visualising, displaying and summarising the normally quite complex call record data. Sequence analysis tools have only more recently been introduced to survey methodology. A few papers exist that investigate the use of sequence analysis for improving nonresponse adjustment methods based on call record data. They conclude, however, that sequence analysis on call record data do not lead to significant improvements of nonresponse adjustment methods. Here, the method is used to inform survey management for adaptive and responsive survey designs. Sequence analysis is combined with clustering, optimal matching and multidimensional scaling. The sequence analysis method is applied to call record data from the UK Understanding Society survey. Implications of the findings for survey practice are discussed.