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ASSESSMENT OF THE QUALITY OF OBSERVERS' RECORDS OF BEHAVIOUR

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of the requirements for the degree of  
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## Abstract

The measurement of behaviour by direct observation may be improved when observers have been provided with equipment which enables real-time recording. There are no data available concerning the quality of this type of measurement. Indeed, there is no consensus among researchers as to appropriate methods of quality assessment. In the present series of studies, observers were provided with hand-held computers programmed to act as real-time recorders. The quality of their records was assessed by three "traditional" methods, representative of those which have been used most frequently in previous behavioural research: interobserver agreement, observer/criterion agreement, and relative error. An instrument calibration procedure, the standard method for measurement accuracy analysis in the natural sciences and engineering, was demonstrated for comparison with traditional methods. The traditional methods were found to be unsatisfactory for theoretical and empirical reasons. The calibration procedure was shown to have some considerable potential advantages for applied behaviour analysis. Disadvantages, both statistical and practical, were also discussed.