

EFFECTIVE ANALYSIS OF TIME DATA

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Most analyses of reaction time (RT) data are conducted by using the statistical techniques with which psychologists are most familiar, such as analysis of variance on the sample mean. Unfortunately, these methods are usually inappropriate for RT data, because they have little power to detect genuine differences in RT between conditions. In addition, some statistical approaches can, under certain circumstances, result in findings that are artifacts of the analysis method itself. A corpus of research has shown more effective analytical methods, such as analyzing the whole RT distribution, although this research has had limited influence. The present article will summarize these advances in methods for analyzing RT data.