

Data analysis Acquisition trials are generally averaged in blocks of four and plotted as block means (\pm s.e.m.), or if larger numbers of trials are used then there may be two or more blocks of trials plotted per day. However, the experimenter should also examine the data by trial to ensure that learning is occurring within each daily test session. Unless an unusual pattern is seen, plotting the data in daily four-trial blocks usually accurately represents the learning process. When daily trials are plotted, long latencies are generally seen during Trial 1 and Trial 2 of day 1, with improvement during Trial 3 and Trial 4. The next day, performance will begin with Trial 1 being longer than Trial 4 of the preceding day, and then performance improving to exceed the performance on Trial 4 of day 1. This saw-tooth pattern repeats on each successive day of testing, with an overall shortening or downward stair-step pattern of performance across days. Plotting the data by blocks of trials smoothes the learning curve and this line is the most widely used index of spatial learning, although other indices have been used (for example, ref. 54).