

TABLE 10.4

A Hypothetical Set of Data of the Same Four Participants in Table 10.3

Participant	Difference Scores (Q-Z)
A	-1
B	-3
C	-1
D	-3
$M = -2$	

Within-Groups Error.

Differences occur within the column of difference scores, even though all participants experienced the same pair of groups. This is a source of error—these differences are not due to having different groups.

Between-Groups Effect.

Mean difference score.

Notice that when we find the difference between paired scores, only one source of error remains (within-groups error). The between-persons error is eliminated when the same or matched participants are observed in each group.