Unequal sample sizes and missing data: There are no missing data, and there are unequal samples across groups: 112 for Ski/Private Lesson (Group 1), 121 for Ski/Group Lesson (Group 2), 64 Ski/No Lesson (Group 3), 112 for Snowboard/Private Lesson (Group 4), 121 for Snowboard/Group Lesson (Group 5), and 64 for Ski/No lesson (Group 6).

Outliers: We assessed outliers after separating each data among the six groups. One univariate outlier was found using a criterion z = , ⍺ = 0.001, which was Case ID #587 (Condition: Snowboard and Lesson Type: No Lesson) in terms of Time. This same data point Case ID #587 was also a multivariate outlier using a criterion of ⍺ = 0.001 and df = 2 with a critical . Simply deleting this case caused continued outliers within this group. Therefore, we winsorized all the within group Time values such that extreme Time values less than 1% or greater than 99% of the data were replaced by their lowest and highest untrimmed time values, respectively.

Multivariate normality: The sample size of 594 includes over 64 data points for each cell of a 2 x 3 between-subjects design which is more than the 20 degrees of freedom for error suggested to assume multivariate normality of the sampling distribution of means, even with unequal sample sizes; there are far more cases than dependent variables in the smallest cell.

Linearity: The linearity assumption holds for this data and was assessed via scatterplots between Time and Falls for each group (see Figure 1).

Homogeneity of Variance-Covariance: