**Two-Way ANOVA Exercise**

Between-Within ANOVA

Three groups (N=20 for each group) of track athletes participated in a study to ascertain the effects of traditional strength training (Squats) and power training (Cleans). The Squats group underwent 12 weeks of strength training, the Cleans group underwent 12 weeks of power training, and a Control group did nothing. Vertical jump was measured for each group before (Pre Test) and at the conclusion (Post Test) of the training. The raw data is included in the Excel file associated with this assignment. See the tab labeled “Within-Between” ANOVA”.

1. Download “Two-Way ANOVA Exercise.xlsx” from my webpage and save the file to your H: drive.
2. Perform a “Within-Between” ANOVA in SPSS using the raw data. The Word document “How to Perform a Two-Way (Within-Between) ANOVA in SPSS” will guide you through the necessary steps. According to the results, answer the questions posed in the blue text box. The SPSS results should be pasted into a separate worksheet named “SPSS Within-Between”. Please only paste information which you referred to in the explanation of the results.

Within-Within ANOVA

According to Newton’s Laws, the lower the position from which a squat jump is performed, the higher the resulting jump height should be. In 2007, Domire and Challis showed that jumping from a lower position did not result in improved jump height. They attributed this to a lack of training specificity. In order words the subjects were trained to jump from shallower depths. Twelve female varsity volleyball players participated in a jumping study to determine if training at low squat depths would result in lower squat depths producing higher jumps. Each subject performed a preferred depth squat jump and a deep squat jump (10 cm lower) at both pre-test and post-test. The raw data is included in the Excel file associated with this assignment. See the tab labeled “Within-Within ANOVA”.

1. Perform a “Within-Within” ANOVA in SPSS using the raw data. There is NOT a specific “How to perform…” document to guide you exactly through the process. You must rely on your understanding of the previous “How to perform” documents. According to the results, answer the questions posed in the blue text box. The SPSS results should be pasted into a separate worksheet named “SPSS Within-Within”. Please only paste information which you referred to in the explanation of the results.