

## SPSS2 Practice2

The data in the file **spss2practice2data** contains data collected from 45 participants in a 3 (**condition**: control/old training/new training) x2 (**job performance test**: before/after) mixed factorial design, where condition is the between subjects factor and job performance test is the within subjects factor.

Participants in an organization were randomly assigned to one of 3 conditions: 1)control, participants received no training, 2)old training, participants received job training methods previously used by the organization, 3)new training, participants received new job training methods. All participants were rated on their job performance prior to the treatment (**jobperf1**) on a scale of 1 to 10 (1=very poor performance, 10=excellent performance) and were rated a second time (**jobperf2**) after receiving the job training sessions. Participants also reported their age and gender, and reported **job satisfaction** ratings post-treatment on a 20-pt scale ranging from 1 (not satisfied) to 20 (extremely satisfied).

Please complete the following analyses

1. Determine whether age of males and females differ significantly from each other by conducting an independent samples t-test on the dependent variable age for the Independent variable gender.
2. Determine whether those receiving the old training program significantly increased job performance by conducting a related samples t-test (paired samples t-test). Remember to use the select if command to choose only those in the old training group. Do the same analysis for those in the new training group. Don't forget to turn off the select if command after you have completed the analyses.
3. Create a new variable called **newtrain** (0=no, 1=yes) and use the recode into new variables command to do this. Recode condition (1=control, 2=old training, 3=new training) so that the control and old training groups are recoded as 0's and participants in the new training group are recoded as 1's. Conduct an independent samples t-test in order to determine if the newtraining group has significantly higher jobperformance scores at time 2 than either the no training or old training group (i.e., make **newtrain** your IV and **jobperf2** your DV). Note: reset the analysis before trying to choose newtrain.
4. Job satisfaction has been found to be related to the implementation of programs (i.e., job training programs) that increase job performance. The job satisfaction scale has been normed so that the population of all job satisfaction scores has a population mean of 10. Compare job satisfaction scores of the new training group to that of the population mean to determine if the new training program significantly increases **job satisfaction** ratings. Calculate a 90% confidence interval on the data and don't forget to turn the select if command off when you've finished.
5. Use the transform command to create difference scores between jobperf1 and jobperf2 (jobperf1-jobperf2) and name the difference variable **perfchange**. Conduct an independent samples t-test on perfchange using **newtrain** as your independent variable to assess whether the new training program produced a significantly greater change in job performance than the control and old training groups. Create a bar graph to show the **mean perfchange** scores across the three levels of condition and display error bars on this graph (standard error). Note: you will need to use the reset button to be able to choose perfchange and newtrain as variables.