**Lab #1 Review, Practice and R intro**

Delete un-needed tables, and copy/paste all the results into the document below.

**SPSS: Opening Non-SPSS files, arranging data and review**

1. Open “**anova.dat**” (tab delimited text file) and import it into SPSS (e.g., convert it to a .sav file). Reconfigure the data to perform a one-way ANOVA and save the data set as “**anova\_reconfig.sav**”.
   1. Perform a one-way between-subjects ANOVA, make sure and include descriptives, homogeneity of variance test, Brown-Forsythe test, a planned comparison of (group 1 vs. groups 2 and 3) and group 2 vs. group 3, and both a Scheffe and a Tukey test.

HIGHLIGHT HERE AND PASTE RESULTS OF #1A

* 1. Perform a linear regression with the same planned comparisons from step “a” above. Include estimates, model fit, descriptives, and part and partial correlations.

HIGHLIGHT HERE AND PASTE RESULTS OF #1B

1. Import “**anova2.txt**” (tab delimited file) into SPSS and perform a factorial between-subjects ANOVA. Rearrange the data so that you can perform a factorial between-groups ANOVA and save the dataset as “**anova2\_reconfig.sav**”.

* Include polynomial contrast on A, plot A vs. B, Scheffe and Tukey on A, display means for everything, descriptives, effect size and homogeneity test.

HIGHLIGHT HERE AND PASTE RESULTS OF #2

1. Import “**anova3.csv**” (comma delimited file) into SPSS and perform a factorial within-subjects ANOVA (e.g. rating two different types of novels over three-month period. Save the dataset as “**anova3.sav**”.

* Include a plot of novel vs. month, display means for everything, descriptives and effect size.

HIGHLIGHT HERE AND PASTE RESULTS OF #3

1. Import “**anova4.dat**” (fixed ASCII file) into SPSS and perform a mixed ANOVA (1 between and 2 within; gender differences in sex drive before and after intervention, four trials each).

* The format of the file is shown in the table below:

|  |  |
| --- | --- |
| **Variable** | **Format** |
| gender | F1.0 |
| beforet1 | F3.0 |
| beforet2 | F2.0 |
| beforet3 | F3.0 |
| beforet4 | F2.0 |
| aftert1 | F3.0 |
| aftert2 | F3.0 |
| aftert3 | F3.0 |
| aftert4 | F3.0 |

* Save the file as “**anova4.sav**”.
* Include a plot of gender by trial for each intervention level, descriptives, effect size and homogeneity test.

HIGHLIGHT HERE AND PASTE RESULTS OF #4

**R: Downloading R, R-Studio and Running Rcmdr**

1. Paste a screenshot below of the R Console on your personal OR lab computer (make sure the version of R is visible in the screenshot). If you need to install R go to <https://cran.r-project.org/>.

HIGHLIGHT HERE AND PASTE THE R CONSOLE SCREENSHOT.

1. Paste a screenshot of R-Studio below. You can download R-Studio at <https://www.rstudio.com/products/rstudio/download/>.

HIGHLIGHT HERE AND PASTE THE R-STUDIO SCREENSHOT.

1. In the R console enter the syntax below (if prompted choose USA (CA 1) as the “mirror”).

install.packages('Rcmdr')

library(Rcmdr)

**In the R Commander:**

1. Load the “**anova\_reconfig.sav**” data set and conduct a one-way anova.
   1. Click on **Data** 🡪 **Import data** 🡪 **from SPSS data set…** and name the data set “anova1” and click on OK. Find the reconfigured data file you saved in #1 above, select it and click on Open.
   2. Click on **Data** 🡪 **Manage variables in active data set** 🡪 **Convert numeric variables to factors…** , highlight “A”, click on “Use numbers” and then click on OK.
   3. Click on **Statistics** 🡪 **Means** 🡪 **One Way ANOVA…**, make sure “A” and “Y” are highlighted, select “Pairwise comparisons of means” and then click on OK.
   4. Click on **Statistics** 🡪 **Variances** 🡪 **Levene’s Test…**, make sure “A” and “Y” are selected, click on “mean” and the click on OK.
   5. Click on **Graphs 🡪 Plot of means…**, make sure “A” and “Y” are selected and click on OK.
   6. Select the R Markdown tab and click on the “Generate report” button. Copy the formatted output and paste below.

HIGHLIGHT HERE AND PASTE RESULTS OF #8

1. Load the “**anova2\_reconfig.sav**” data set and conduct a factorial (multiway) ANOVA using R Commander.

HIGHLIGHT HERE AND PASTE RESULTS OF #9