Psy 430 Memory Lab
Interpreting SPSS Output

You will receive a packet of information explaining the experimental scenario, along with the relevant SPSS output. Your job is to interpret the output and **type a paragraph** reporting the results **in APA format**. Remember to specify what is being measured and how the data was compiled. Also report some basic descriptive statistics (include a table of means and standard deviations). You also need to report the inferential statistics. Make sure to be as specific as the analyses allow...do not ignore the follow-up analyses.

Problem (see Winer pg. 152)

An experimenter is interested in evaluating the effectiveness of three methods (factor) of teaching a given course. A group of 24 subjects is available to the experimenter. This group is considered by the experimenter to be the equivalent of a random sample from the population of interest. Three subgroups of eight subjects each are formed at random; the subgroups are then taught by one of the three methods. Upon completion of the course, each of the subgroups is given a common test covering the material in the course. The resulting test scores are given in the following table.

Method 1	Method 2	Method 3
3	4	6
5	4	7
2	3	8
4	8	6
8	7	7
4	4	9
3	2	10
9	5	9

Univariate Analysis of Variance

[DataSet2] F:\teaching methods ANOVA.sav

Between-Subjects Factors

		N
method	1	8
	2	8
	3	8

Descriptive Statistics

Dependent Variable: numbercorrect

method	Mean	Std. Deviation	N
1	4.75	2.493	8
2	4.63	1.996	8
3	7.75	1.488	8
Total	5.71	2.440	24

Tests of Between-Subjects Effects

Dependent Variable: numbercorrect

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	50.083ª	2	25.042	6.053	.008	.366
Intercept	782.042	1	782.042	189.040	.000	.900
method	50.083	2	25.042	6.053	.008	.366
Error	86.875	21	4.137			
Total	919.000	24				
Corrected Total	136.958	23				

a. R Squared = .366 (Adjusted R Squared = .305)

Post Hoc Tests

method

Multiple Comparisons

Dependent Variable: numbercorrect
Tukey HSD

(I) method	(J) method	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.13	1.017	.992	-2.44	2.69
	3	-3.00*	1.017	.020	-5.56	-.44
2	1	-.13	1.017	.992	-2.69	2.44
	3	-3.13*	1.017	.015	-5.69	-.56
3	1	3.00*	1.017	.020	.44	5.56
	2	3.13*	1.017	.015	.56	5.69

Based on observed means.

*. The mean difference is significant at the .05 level.

Homogeneous Subsets

numbercorrect

Tukey HSD[a,b]

method	N	Subset	
		1	2
2	8	4.63	
1	8	4.75	
3	8		7.75
Sig.		.992	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 4.137.

   a. Uses Harmonic Mean Sample Size = 8.000.

   b. Alpha = .05.