

Proc GLM comparing scores from pretest to post and follow up**The GLM Procedure**

Number of Observations Read	20
Number of Observations Used	20

Proc GLM comparing scores from pretest to post and follow up**The GLM Procedure
Repeated Measures Analysis of Variance**

Repeated Measures Level Information			
Dependent Variable	pre	post	follow
Level of exams	1	2	3

exams_N represents the contrast between the nth level of exams and the 1st			
M Matrix Describing Transformed Variables			
	pre	post	follow
exams_2	-1.000000000	1.000000000	0.000000000
exams_3	-1.000000000	0.000000000	1.000000000

MANOVA Test Criteria and Exact F Statistics for the Hypothesis of no exams Effect					
H = Type III SSCP Matrix for exams					
E = Error SSCP Matrix					
S=1 M=0 N=8					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.68621181	4.12	2	18	0.0337
Pillai's Trace	0.31378819	4.12	2	18	0.0337
Hotelling-Lawley Trace	0.45727600	4.12	2	18	0.0337
Roy's Greatest Root	0.45727600	4.12	2	18	0.0337

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The GLM Procedure
Repeated Measures Analysis of Variance
Univariate Tests of Hypotheses for Within Subject Effects

Source	DF	Type III SS	Mean Square	F Value	Pr > F	Adj Pr > F	
						G - G	H - F
exams	2	3074.63333	1537.31667	4.50	0.0177	0.0178	0.0177
Error(exams)	38	12991.36667	341.87807				

Greenhouse-Geisser Epsilon	0.9968
Huynh-Feldt Epsilon	1.1135

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The GLM Procedure
Repeated Measures Analysis of Variance
Analysis of Variance of Contrast Variables

exams_N represents the contrast between the nth level of exams and the 1st

Contrast Variable: exams_2

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Mean	1	5951.25000	5951.25000	8.29	0.0096
Error	19	13637.75000	717.77632		

Contrast Variable: exams_3

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Mean	1	696.20000	696.20000	1.02	0.3253
Error	19	12971.80000	682.72632		