

# General Linear Model

## Notes

Output Created	13-OCT-2003 15:17:55	
Comments		
Input	Data	C:\MyFiles\fullerton\Classes\Classes - 465 Anova & Regression\SPSS & Raw\within_only_reader.sav
	Filter	<none>
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	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax	GLM t1 t2 t3 /WSFACTOR = timex 3 Polynomial /METHOD = SSTYPE(3) /PLOT = PROFILE( timex ) /EMMEANS = TABLES(timex) COMPARE ADJ(LSD) /PRINT = DESCRIPTIVE /CRITERIA = ALPHA(.05) /WSDSIGN = timex .	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.23

## Within-Subjects Factors

Measure: MEASURE\_1

TIMEX	Dependent Variable
1	T1
2	T2
3	T3

## Descriptive Statistics

	Mean	Std. Deviation	N
T1	16.2500	12.60622	4
T2	19.0000	13.14027	4
T3	21.0000	13.03840	4

## Multivariate Tests<sup>b</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
TIMEX	Pillai's Trace	.944	16.971 <sup>a</sup>	2.000	2.000	.056
	Wilks' Lambda	.056	16.971 <sup>a</sup>	2.000	2.000	.056
	Hotelling's Trace	16.971	16.971 <sup>a</sup>	2.000	2.000	.056
	Roy's Largest Root	16.971	16.971 <sup>a</sup>	2.000	2.000	.056

a. Exact statistic

b.

Design: Intercept  
Within Subjects Design: TIMEX

## Mauchly's Test of Sphericity<sup>b</sup>

Measure: MEASURE\_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup>		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
TIMEX	.540	1.234	2	.540	.685	1.000	.500

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.  
Design: Intercept  
Within Subjects Design: TIMEX

## Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
TIMEX	Sphericity Assumed	45.500	2	22.750	14.891	.005
	Greenhouse-Geisser	45.500	1.369	33.226	14.891	.015
	Huynh-Feldt	45.500	2.000	22.750	14.891	.005
	Lower-bound	45.500	1.000	45.500	14.891	.031
Error(TIMEX)	Sphericity Assumed	9.167	6	1.528		
	Greenhouse-Geisser	9.167	4.108	2.231		
	Huynh-Feldt	9.167	6.000	1.528		
	Lower-bound	9.167	3.000	3.056		

## Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	TIMEX	Type III Sum of Squares	df	Mean Square	F	Sig.
TIMEX	Linear	45.125	1	45.125	30.943	.011
	Quadratic	.375	1	.375	.235	.661
Error(TIMEX)	Linear	4.375	3	1.458		
	Quadratic	4.792	3	1.597		

## Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	4218.750	1	4218.750	8.462	.062
Error	1495.583	3	498.528		

## Estimated Marginal Means

**TIMEX**

## Estimates

Measure: MEASURE\_1

TIMEX	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	16.250	6.303	-3.809	36.309
2	19.000	6.570	-1.909	39.909
3	21.000	6.519	.253	41.747

## Pairwise Comparisons

Measure: MEASURE\_1

(I) TIMEX	(J) TIMEX	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	1					
	2	-2.750	1.109	.089	-6.278	.778
	3	-4.750*	.854	.011	-7.468	-2.032
2	1	2.750	1.109	.089	-.778	6.278
	2					
	3	-2.000*	.577	.041	-3.837	-.163
3	1	4.750*	.854	.011	2.032	7.468
	2	2.000*	.577	.041	.163	3.837
	3					

Based on estimated marginal means

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

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

## Multivariate Tests

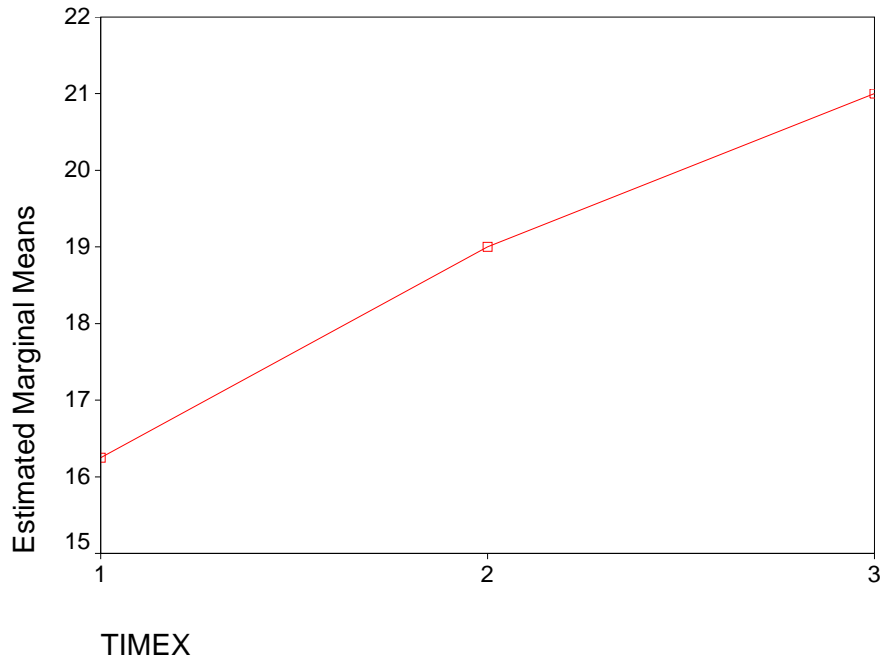
	Value	F	Hypothesis df	Error df	Sig.
Pillai's trace	.944	16.971 <sup>a</sup>	2.000	2.000	.056
Wilks' lambda	.056	16.971 <sup>a</sup>	2.000	2.000	.056
Hotelling's trace	16.971	16.971 <sup>a</sup>	2.000	2.000	.056
Roy's largest root	16.971	16.971 <sup>a</sup>	2.000	2.000	.056

Each F tests the multivariate effect of TIMEX. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

## Profile Plots

## Estimated Marginal Means of MEASURE\_1



```
UNIANOVA
score BY time sub
/RANDOM = sub
/METHOD = SSTYPE(3)
/INTERCEPT = INCLUDE
/PRINT = DESCRIPTIVE
/CRITERIA = ALPHA(.05)
/DESIGN = time sub time*sub .
```

## Univariate Analysis of Variance

### Notes

Output Created	13-OCT-2003 15:32:24	
Comments		
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax	UNIANOVA score BY time sub /RANDOM = sub /METHOD = SSTYPE(3) /INTERCEPT = INCLUDE /PRINT = DESCRIPTIVE /CRITERIA = ALPHA(.05) /DESIGN = time sub time*sub .	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.13

### Between-Subjects Factors

	Value Label	N
TIME	1.00	4
	2.00	4
	3.00	4
SUB	1.00	3
	2.00	3
	3.00	3
	4.00	3

### Descriptive Statistics

Dependent Variable: SCORE

TIME	SUB	Mean	Std. Deviation	N
1.00	1.00	2.0000	.	1
	2.00	10.0000	.	1
	3.00	23.0000	.	1
	4.00	30.0000	.	1
	Total	16.2500	12.60622	4
2.00	1.00	4.0000	.	1
	2.00	12.0000	.	1
	3.00	29.0000	.	1
	4.00	31.0000	.	1
	Total	19.0000	13.14027	4
3.00	1.00	7.0000	.	1
	2.00	13.0000	.	1
	3.00	30.0000	.	1
	4.00	34.0000	.	1
	Total	21.0000	13.03840	4
Total	1.00	4.3333	2.51661	3
	2.00	11.6667	1.52753	3
	3.00	27.3333	3.78594	3
	4.00	31.6667	2.08167	3
	Total	18.7500	11.87147	12

### Tests of Between-Subjects Effects

Dependent Variable: SCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	
Intercept	Hypothesis	4218.750	1	4218.750	8.462	.062
	Error	1495.583	3	498.528 <sup>a</sup>		
TIME	Hypothesis	45.500	2	22.750	14.891	.005
	Error	9.167	6	1.528 <sup>b</sup>		
SUB	Hypothesis	1495.583	3	498.528	326.309	.000
	Error	9.167	6	1.528 <sup>b</sup>		
TIME * SUB	Hypothesis	9.167	6	1.528	.	.
	Error	.000	0	.		<sup>c</sup>

a. MS(SUB)

b. MS(TIME \* SUB)

c. MS(Error)

```
list /variables sub arousal treatmen.
```

## List

### Notes

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Output Created	13-OCT-2003 15:42:21	
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	Weight	<none>
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	N of Rows in Working Data File	18
Missing Value Handling	Definition of Missing Cases Used	
Syntax	list /variables sub arousal treatmen.	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.00

---

SUB	AROUSAL	TREATMEN
1.00	.5122	1.0000
2.00	1.0240	1.0000
3.00	.2560	1.0000
4.00	.7680	1.0000
5.00	.7680	1.0000
6.00	.5120	1.0000
1.00	.2560	2.0000
2.00	.2880	2.0000
3.00	.0640	2.0000
4.00	.1280	2.0000
5.00	.2560	2.0000
6.00	.0960	2.0000
1.00	.5120	3.0000
2.00	.7680	3.0000
3.00	.2560	3.0000
4.00	.7680	3.0000
5.00	.5120	3.0000
6.00	.2560	3.0000

Number of cases read: 18    Number of cases listed: 18

```
list /variables low med high.
```

## List

## Notes

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```

Output Created                               13-OCT-2003 15:42:36
Comments
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                                                Anova & Regression\SPSS &
                                                Raw\one_within.sav
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                                                Weight                               <none>
                                                Split File                           <none>
                                                N of Rows in Working Data File       18
Missing Value Handling  Definition of Missing
Cases Used
Syntax                                                         list /variables low med high.
Resources  Elapsed Time
Resources  Elapsed Time                               0:00:00.00
    
```

---

	LOW	MED	HIGH
.5122	.2560	.5120	
1.0240	.2880	.7680	
.2560	.0640	.2560	
.7680	.1280	.7680	
.7680	.2560	.5120	
.5120	.0960	.2560	
.	.	.	
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.	.	.	
.	.	.	
.	.	.	
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Number of cases read: 18      Number of cases listed: 18

```

GLM
  low med high
  /WSFACTOR = arousalx 3 Polynomial
  /METHOD = SSTYPE(3)
  /PLOT = PROFILE( arousalx )
  /EMMEANS = TABLES(arousalx) COMPARE ADJ(LSD)
  /PRINT = DESCRIPTIVE
  /CRITERIA = ALPHA(.05)
  /WSDESIGN = arousalx .
    
```

### General Linear Model

## Notes

Output Created	13-OCT-2003 15:42:50	
Comments		
Input	Data	C:\MyFiles\fullerton\Classes\Classes - 465 Anova & Regression\SPSS & Raw\one_within.sav
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	Split File	<none>
	N of Rows in Working Data File	18
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax	GLM low med high /WSFACTOR = arousalx 3 Polynomial /METHOD = SSTYPE(3) /PLOT = PROFILE( arousalx ) /EMMEANS = TABLES(arousalx) COMPARE ADJ(LSD) /PRINT = DESCRIPTIVE /CRITERIA = ALPHA(.05) /WSDESIGN = arousalx .	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.08

### Within-Subjects Factors

Measure: MEASURE\_1

AROUSALX	Dependent Variable
1	LOW
2	MED
3	HIGH

### Descriptive Statistics

	Mean	Std. Deviation	N
LOW	.640033	.2684760	6
MED	.181333	.0963549	6
HIGH	.512000	.2289734	6

### Multivariate Tests<sup>b</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
AROUSALX	Pillai's Trace	.849	11.216 <sup>a</sup>	2.000	4.000	.023
	Wilks' Lambda	.151	11.216 <sup>a</sup>	2.000	4.000	.023
	Hotelling's Trace	5.608	11.216 <sup>a</sup>	2.000	4.000	.023
	Rov's Largest Root	5.608	11.216 <sup>a</sup>	2.000	4.000	.023

a. Exact statistic

b.  
Design: Intercept  
Within Subjects Design: AROUSALX



### Mauchly's Test of Sphericity<sup>b</sup>

Measure: MEASURE\_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup>		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
AROUSALX	.801	.889	2	.641	.834	1.000	.500

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.  
Design: Intercept  
Within Subjects Design: AROUSALX

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
AROUSALX	Sphericity Assumed	.672	2	.336	20.076	.000
	Greenhouse-Geisser	.672	1.668	.403	20.076	.001
	Huynh-Feldt	.672	2.000	.336	20.076	.000
	Lower-bound	.672	1.000	.672	20.076	.007
Error(AROUSALX)	Sphericity Assumed	.167	10	1.674E-02		
	Greenhouse-Geisser	.167	8.338	2.008E-02		
	Huynh-Feldt	.167	10.000	1.674E-02		
	Lower-bound	.167	5.000	3.349E-02		

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	AROUSALX	Type III Sum of Squares	df	Mean Square	F	Sig.
AROUSALX	Linear	4.918E-02	1	4.918E-02	5.005	.075
	Quadratic	.623	1	.623	26.333	.004
Error(AROUSALX)	Linear	4.913E-02	5	9.825E-03		
	Quadratic	.118	5	2.366E-02		

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	3.556	1	3.556	35.449	.002
Error	.502	5	.100		

## Estimated Marginal Means

### AROUSALX

## Estimates

Measure: MEASURE\_1

AROUSALX	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	.640	.110	.358	.922
2	.181	.039	8.022E-02	.282
3	.512	.093	.272	.752

## Pairwise Comparisons

Measure: MEASURE\_1

(I) AROUSALX	(J) AROUSALX	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	1					
	2	.459*	.087	.003	.235	.682
	3	.128	.057	.075	-1.908E-02	.275
2	1	-.459*	.087	.003	-.682	-.235
	2					
	3	-.331*	.077	.008	-.528	-.133
3	1	-.128	.057	.075	-.275	1.908E-02
	2	.331*	.077	.008	.133	.528
	3					

Based on estimated marginal means

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

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

## Multivariate Tests

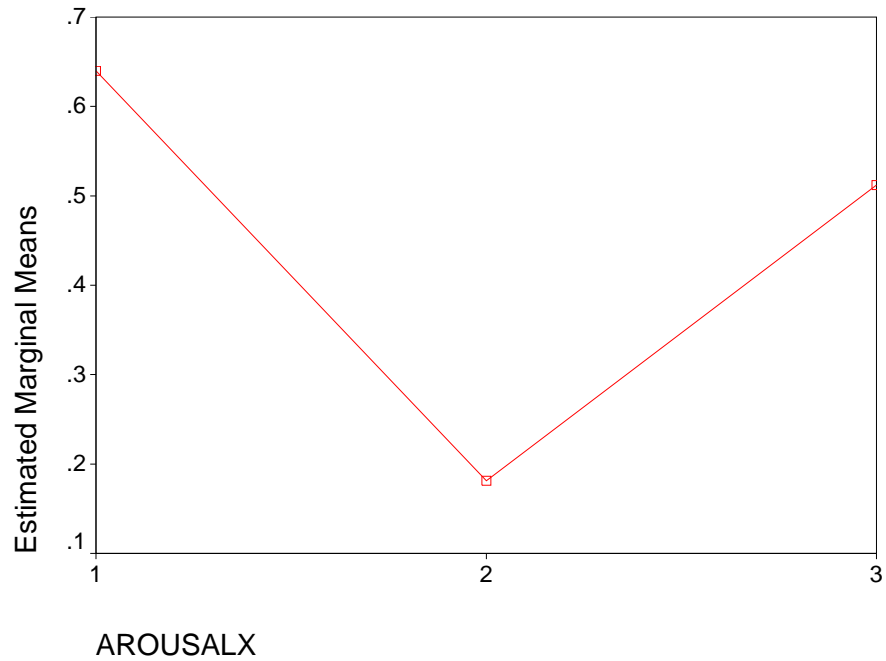
	Value	F	Hypothesis df	Error df	Sig.
Pillai's trace	.849	11.216 <sup>a</sup>	2.000	4.000	.023
Wilks' lambda	.151	11.216 <sup>a</sup>	2.000	4.000	.023
Hotelling's trace	5.608	11.216 <sup>a</sup>	2.000	4.000	.023
Roy's largest root	5.608	11.216 <sup>a</sup>	2.000	4.000	.023

Each F tests the multivariate effect of AROUSALX. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

## Profile Plots

## Estimated Marginal Means of MEASURE\_1



```
GLM
  pretest posttest BY groupiv
  /WSFACTOR = prepost 2 Polynomial
  /METHOD = SSTYPE(3)
  /PLOT = PROFILE( prepost prepost*groupiv )
  /PRINT = DESCRIPTIVE
  /CRITERIA = ALPHA(.05)
  /WSDSIGN = prepost
  /DESIGN = groupiv .
```

### General Linear Model

## Notes

Output Created	13-OCT-2003 15:46:25	
Comments		
Input	Data	C:\MyFiles\fullerton\Classes\Classes - 465 Anova & Regression\SPSS & Raw\prepost.sav
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	N of Rows in Working Data File	20
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax	GLM pretest posttest BY groupiv /WSFACTOR = prepost 2 Polynomial /METHOD = SSTYPE(3) /PLOT = PROFILE( prepost prepost*groupiv ) /PRINT = DESCRIPTIVE /CRITERIA = ALPHA(.05) /WSDESIGN = prepost /DESIGN = groupiv .	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.15

### Within-Subjects Factors

Measure: MEASURE\_1

PREPOST	Dependent Variable
1	PRETEST
2	POSTTEST

### Between-Subjects Factors

	Value Label	N
GROUPIV	1.00 Intervention	10
Groups	2.00 Control	10

### Descriptive Statistics

	GROUPIV	Groups	Mean	Std. Deviation	N
PRETEST Pretest - unprot sex 3 mo prior past week	1.00	Intervention	7.4000	4.92612	10
	2.00	Control	7.5000	6.05989	10
	Total		7.4500	5.37514	20
POSTTEST Posttest - unprot sex current past week	1.00	Intervention	2.8000	1.54919	10
	2.00	Control	5.1000	3.72529	10
	Total		3.9500	3.01706	20

### Multivariate Tests<sup>b</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
PREPOST	Pillai's Trace	.524	19.794 <sup>a</sup>	1.000	18.000	.000
	Wilks' Lambda	.476	19.794 <sup>a</sup>	1.000	18.000	.000
	Hotelling's Trace	1.100	19.794 <sup>a</sup>	1.000	18.000	.000
	Roy's Largest Root	1.100	19.794 <sup>a</sup>	1.000	18.000	.000
PREPOST * GROUPIV	Pillai's Trace	.098	1.955 <sup>a</sup>	1.000	18.000	.179
	Wilks' Lambda	.902	1.955 <sup>a</sup>	1.000	18.000	.179
	Hotelling's Trace	.109	1.955 <sup>a</sup>	1.000	18.000	.179
	Roy's Largest Root	.109	1.955 <sup>a</sup>	1.000	18.000	.179

a. Exact statistic

b.  
Design: Intercept+GROUPIV  
Within Subjects Design: PREPOST

### Mauchly's Test of Sphericity<sup>b</sup>

Measure: MEASURE\_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup>		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
PREPOST	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.  
Design: Intercept+GROUPIV  
Within Subjects Design: PREPOST

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
PREPOST	Sphericity Assumed	122.500	1	122.500	19.794	.000
	Greenhouse-Geisser	122.500	1.000	122.500	19.794	.000
	Huynh-Feldt	122.500	1.000	122.500	19.794	.000
	Lower-bound	122.500	1.000	122.500	19.794	.000
PREPOST * GROUPIV	Sphericity Assumed	12.100	1	12.100	1.955	.179
	Greenhouse-Geisser	12.100	1.000	12.100	1.955	.179
	Huynh-Feldt	12.100	1.000	12.100	1.955	.179
	Lower-bound	12.100	1.000	12.100	1.955	.179
Error(PREPOST)	Sphericity Assumed	111.400	18	6.189		
	Greenhouse-Geisser	111.400	18.000	6.189		
	Huynh-Feldt	111.400	18.000	6.189		
	Lower-bound	111.400	18.000	6.189		

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	PREPOST	Type III Sum of Squares	df	Mean Square	F	Sig.
PREPOST	Linear	122.500	1	122.500	19.794	.000
PREPOST * GROUPIV	Linear	12.100	1	12.100	1.955	.179
Error(PREPOST)	Linear	111.400	18	6.189		

### Tests of Between-Subjects Effects

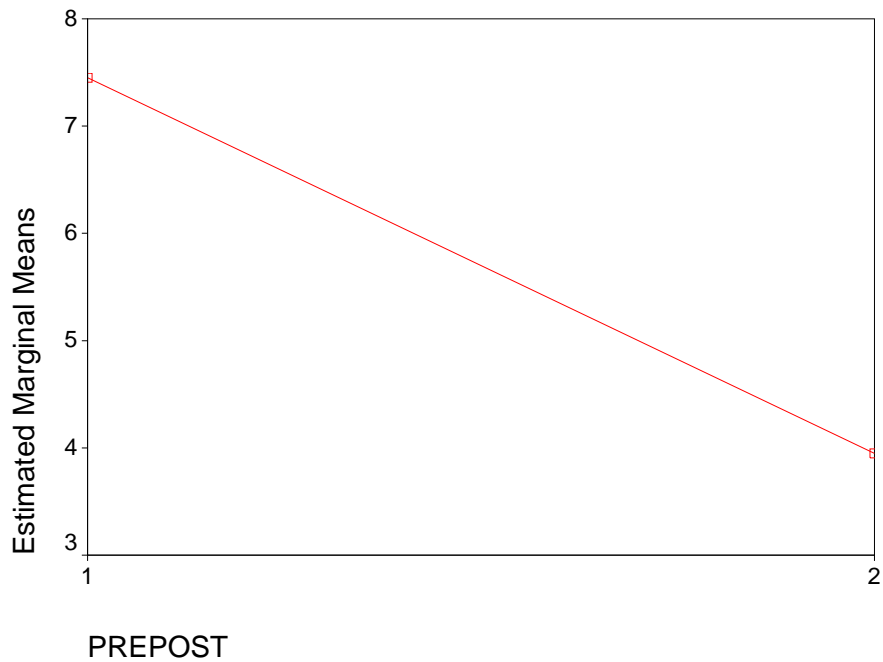
Measure: MEASURE\_1

Transformed Variable: Average

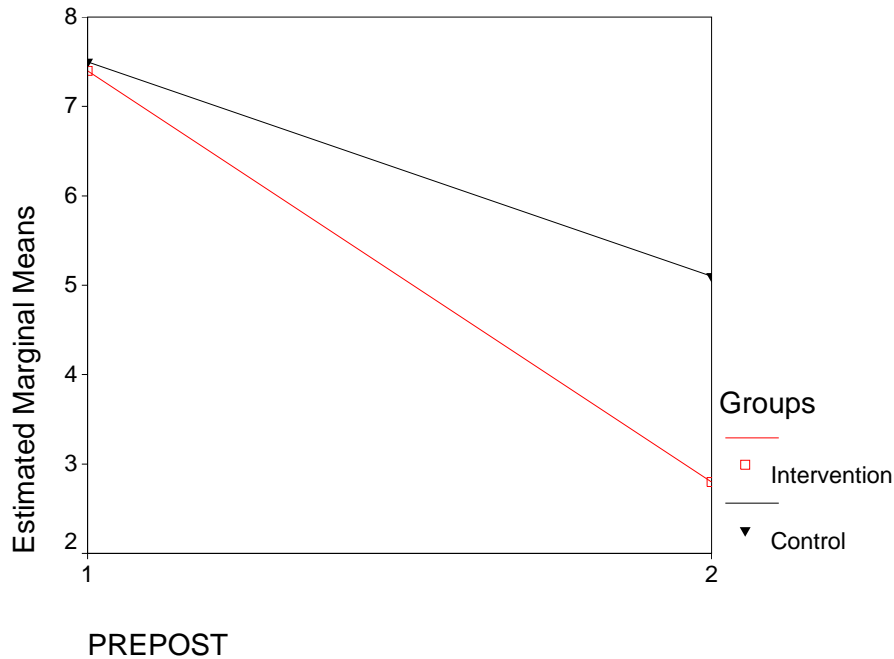
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	1299.600	1	1299.600	40.056	.000
GROUPIV	14.400	1	14.400	.444	.514
Error	584.000	18	32.444		

### Profile Plots

Estimated Marginal Means of MEASURE\_1



## Estimated Marginal Means of MEASURE\_1



```

ONEWAY
diffscr BY groupiv
/STATISTICS DESCRIPTIVES
/PLOT MEANS
/MISSING ANALYSIS .
    
```

### Oneway

#### Notes

Output Created	13-OCT-2003 15:47:36	
Comments		
Input	Data	C:\MyFiles\fullerton\Classes\Classes - 465 Anova & Regression\SPSS & Raw\prepost.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	20
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax	ONEWAY diffscr BY groupiv /STATISTICS DESCRIPTIVES /PLOT MEANS /MISSING ANALYSIS .	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.04

## Descriptives

DIFFSCR Difference between post-pre

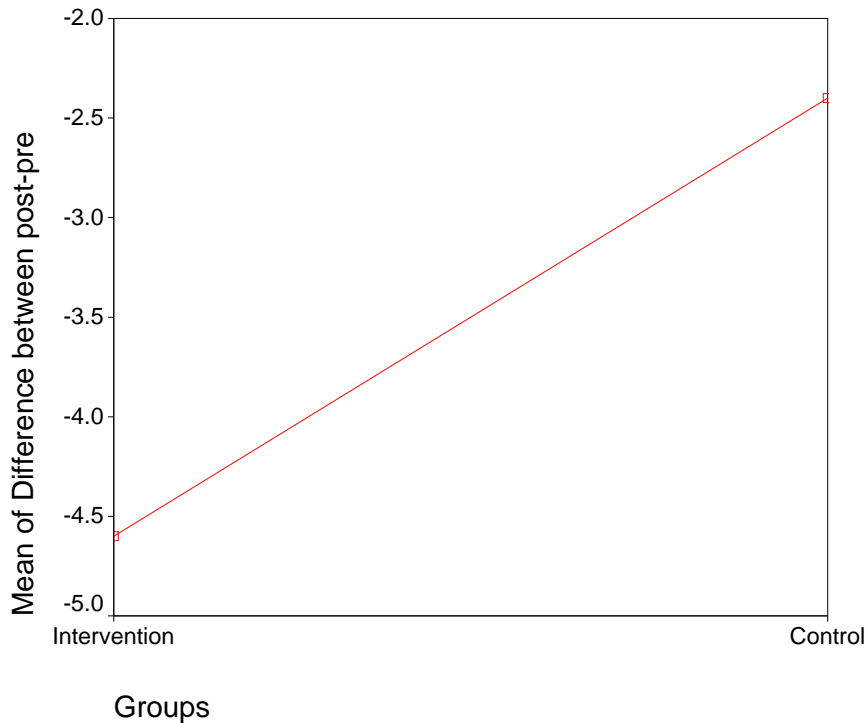
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1.00 Intervention	10	-4.6000	4.08792	1.29271	-7.5243	-1.6757	-15.00	.00
2.00 Control	10	-2.4000	2.83627	.89691	-4.4289	-.3711	-8.00	2.00
Total	20	-3.5000	3.60555	.80623	-5.1874	-1.8126	-15.00	2.00

## ANOVA

DIFFSCR Difference between post-pre

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24.200	1	24.200	1.955	.179
Within Groups	222.800	18	12.378		
Total	247.000	19			

## Means Plots



```

UNIANOVA
  posttest BY groupiv WITH pretest
  /METHOD = SSTYPE(1)
  /INTERCEPT = INCLUDE
  /PLOT = PROFILE( groupiv )
  /EMMEANS = TABLES(groupiv) WITH(pretest=MEAN)
  /PRINT = DESCRIPTIVE
  /CRITERIA = ALPHA(.05)
  /DESIGN = pretest groupiv .
  
```

## Univariate Analysis of Variance



## Notes

Output Created	13-OCT-2003 15:48:40	
Comments		
Input	Data	C:\MyFiles\fullerton\Classes\Classes - 465 Anova & Regression\SPSS & Raw\prepost.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	20
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax	UNIANOVA posttest BY groupiv WITH pretest /METHOD = SSTYPE(1) /INTERCEPT = INCLUDE /PLOT = PROFILE( groupiv ) /EMMEANS = TABLES(groupiv) WITH(pretest=MEAN) /PRINT = DESCRIPTIVE /CRITERIA = ALPHA(.05) /DESIGN = pretest groupiv .	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.15

### Between-Subjects Factors

	Value Label	N
GROUPIV	1.00 Intervention	10
Groups	2.00 Control	10

### Descriptive Statistics

Dependent Variable: POSTTEST Posttest - unprot sex current past week

GROUPIV	Groups	Mean	Std. Deviation	N
1.00	Intervention	2.8000	1.54919	10
2.00	Control	5.1000	3.72529	10
Total		3.9500	3.01706	20

### Tests of Between-Subjects Effects

Dependent Variable: POSTTEST Posttest - unprot sex current past week

Source	Type I Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	128.177 <sup>a</sup>	2	64.088	24.334	.000
Intercept	312.050	1	312.050	118.482	.000
PRETEST	102.710	1	102.710	38.998	.000
GROUPIV	25.467	1	25.467	9.669	.006
Error	44.773	17	2.634		
Total	485.000	20			
Corrected Total	172.950	19			

a. R Squared = .741 (Adjusted R Squared = .711)

## Estimated Marginal Means

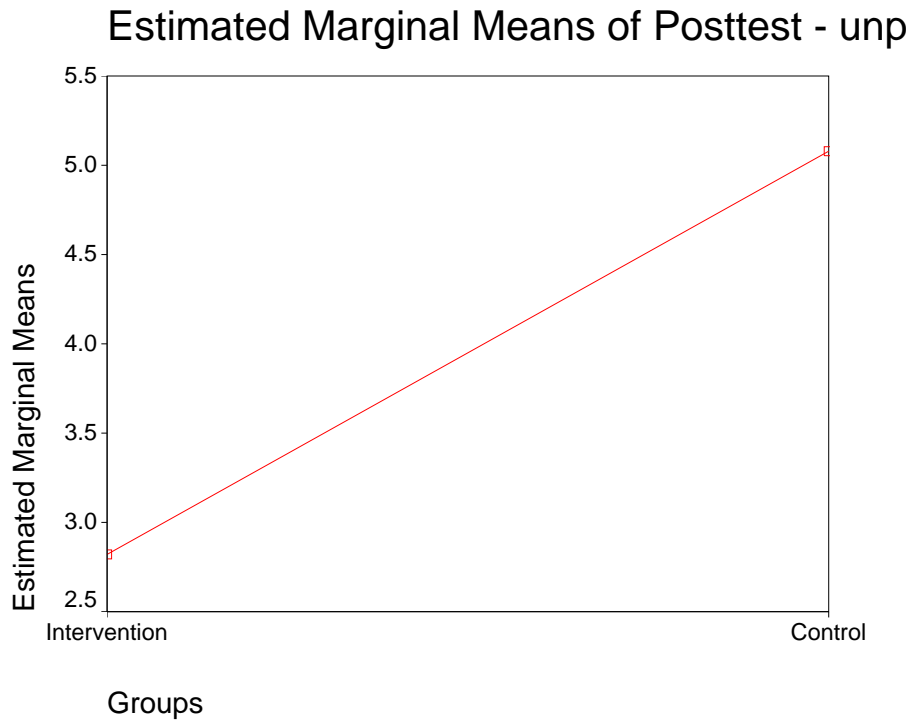
## Groups

Dependent Variable: POSTTEST Posttest - unprot sex current past week

Groups	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1.00 Intervention	2.822 <sup>a</sup>	.513	1.739	3.904
2.00 Control	5.078 <sup>a</sup>	.513	3.996	6.161

a. Evaluated at covariates appeared in the model: PRETEST Pretest - unprot sex 3 mo prior past week = 7.4500.

## Profile Plots



## General Linear Model

## Notes

Output Created	13-OCT-2003 15:59:52	
Comments		
Input	Data	C:\MyFiles\fullerton\Classes\Classes - 520t - Advanced ANOVA & Long Design\2x2within.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	40
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax	<pre>GLM iv_11 iv_12 iv_21 iv_22 /WSFACTOR = task 2 Polynomial noise 2 Polynomial /METHOD = SSTYPE(3) /PLOT = PROFILE( noise*task task*noise ) /PRINT = DESCRIPTIVE /CRITERIA = ALPHA(.05) /WSEDESIGN = task noise task*noise .</pre>	
Resources	Elapsed Time	
Resources	Elapsed Time	0:00:00.10

### Within-Subjects Factors

Measure: MEASURE\_1

TASK	NOISE	Dependent Variable
1	1	IV_11
	2	IV_12
2	1	IV_21
	2	IV_22

### Descriptive Statistics

	Mean	Std. Deviation	N
IV_11 Easy Task (A1), Soft Noise (B1)	79.7000	3.59166	10
IV_12 Difficult Task (A2), Soft Noise (B1)	79.5000	3.71932	10
IV_21 Easy Task (A1), Loud Noise (B2)	80.7000	4.69160	10
IV_22 Difficult Task (A2), Loud Noise (B2)	81.1000	3.54181	10

### Multivariate Tests<sup>b</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
TASK	Pillai's Trace	.663	17.686 <sup>a</sup>	1.000	9.000	.002
	Wilks' Lambda	.337	17.686 <sup>a</sup>	1.000	9.000	.002
	Hotelling's Trace	1.965	17.686 <sup>a</sup>	1.000	9.000	.002
	Roy's Largest Root	1.965	17.686 <sup>a</sup>	1.000	9.000	.002
NOISE	Pillai's Trace	.005	.044 <sup>a</sup>	1.000	9.000	.838
	Wilks' Lambda	.995	.044 <sup>a</sup>	1.000	9.000	.838
	Hotelling's Trace	.005	.044 <sup>a</sup>	1.000	9.000	.838
	Roy's Largest Root	.005	.044 <sup>a</sup>	1.000	9.000	.838
TASK * NOISE	Pillai's Trace	.106	1.066 <sup>a</sup>	1.000	9.000	.329
	Wilks' Lambda	.894	1.066 <sup>a</sup>	1.000	9.000	.329
	Hotelling's Trace	.118	1.066 <sup>a</sup>	1.000	9.000	.329
	Roy's Largest Root	.118	1.066 <sup>a</sup>	1.000	9.000	.329

a. Exact statistic

b.

Design: Intercept

Within Subjects Design: TASK+NOISE+TASK\*NOISE

### Mauchly's Test of Sphericity<sup>b</sup>

Measure: MEASURE\_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>a</sup>		
					Greenhouse- Geisser	Huynh-Feldt	Lower-bound
TASK	1.000	.000	0	.	1.000	1.000	1.000
NOISE	1.000	.000	0	.	1.000	1.000	1.000
TASK * NOISE	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept

Within Subjects Design: TASK+NOISE+TASK\*NOISE

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
TASK	Sphericity Assumed	16.900	1	16.900	17.686	.002
	Greenhouse-Geisser	16.900	1.000	16.900	17.686	.002
	Huynh-Feldt	16.900	1.000	16.900	17.686	.002
	Lower-bound	16.900	1.000	16.900	17.686	.002
Error(TASK)	Sphericity Assumed	8.600	9	.956		
	Greenhouse-Geisser	8.600	9.000	.956		
	Huynh-Feldt	8.600	9.000	.956		
	Lower-bound	8.600	9.000	.956		
NOISE	Sphericity Assumed	1.000E-01	1	1.000E-01	.044	.838
	Greenhouse-Geisser	1.000E-01	1.000	1.000E-01	.044	.838
	Huynh-Feldt	1.000E-01	1.000	1.000E-01	.044	.838
	Lower-bound	1.000E-01	1.000	1.000E-01	.044	.838
Error(NOISE)	Sphericity Assumed	20.400	9	2.267		
	Greenhouse-Geisser	20.400	9.000	2.267		
	Huynh-Feldt	20.400	9.000	2.267		
	Lower-bound	20.400	9.000	2.267		
TASK * NOISE	Sphericity Assumed	.900	1	.900	1.066	.329
	Greenhouse-Geisser	.900	1.000	.900	1.066	.329
	Huynh-Feldt	.900	1.000	.900	1.066	.329
	Lower-bound	.900	1.000	.900	1.066	.329
Error(TASK*NOISE)	Sphericity Assumed	7.600	9	.844		
	Greenhouse-Geisser	7.600	9.000	.844		
	Huynh-Feldt	7.600	9.000	.844		
	Lower-bound	7.600	9.000	.844		

### Tests of Between-Subjects Effects

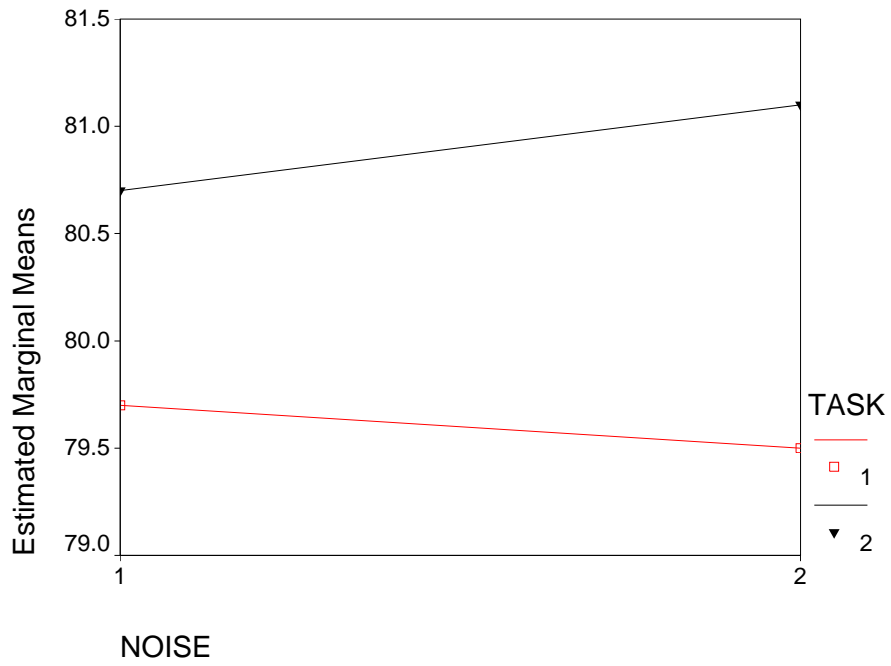
Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	257602.500	1	257602.500	4501.791	.000
Error	515.000	9	57.222		

### Profile Plots

Estimated Marginal Means of MEASURE\_1



Estimated Marginal Means of MEASURE\_1

