

One-way Repeated Measures Anova Lab

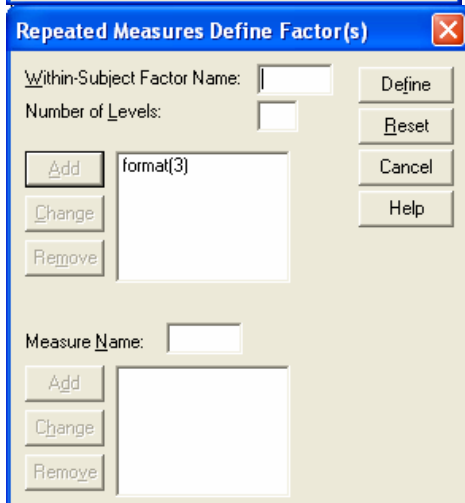
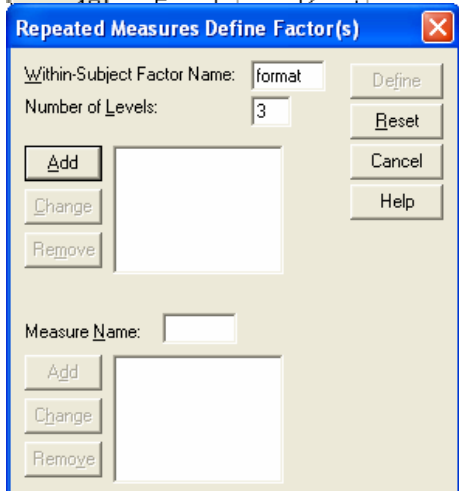
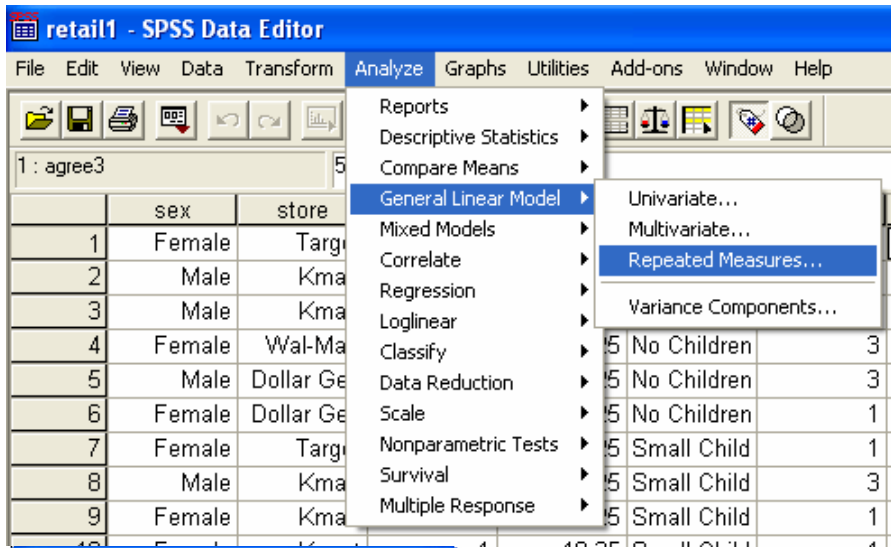
The SPSS data set may be downloaded from:

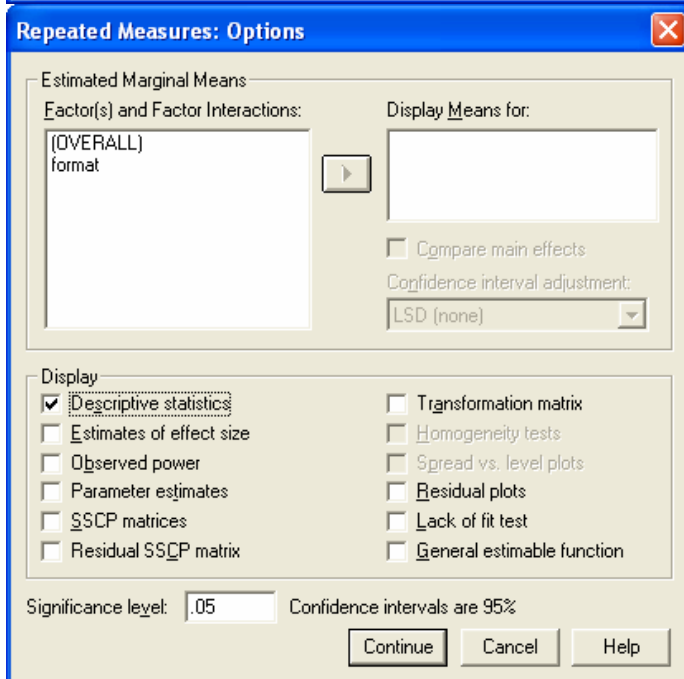
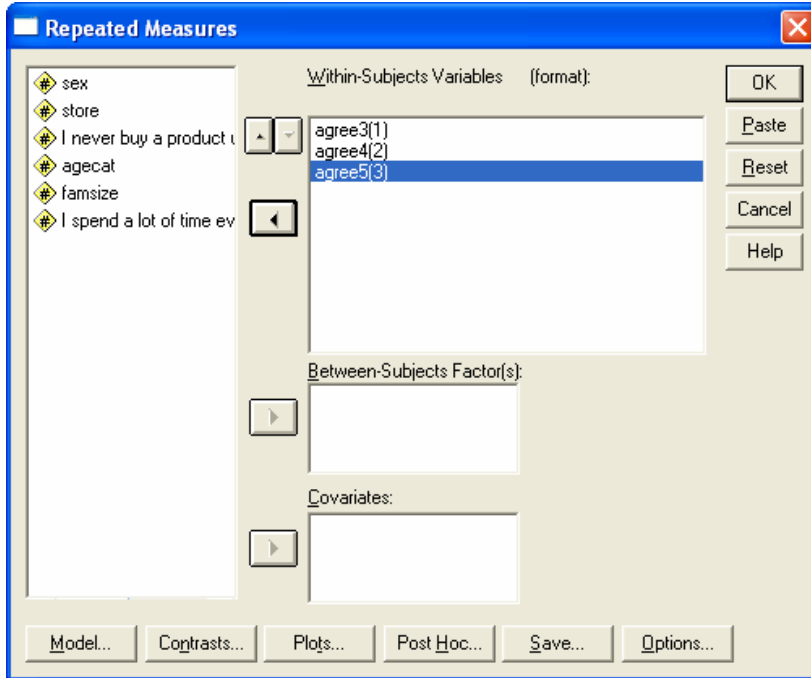
www.mtsu.edu/~dkfuller/psy629/retail1.sav.

A marketing researcher surveyed individuals leaving four different stores. The researcher asked each person to indicate their level of agreement with three different statements (1 = Strongly disagree, 5 = Strongly agree).

Agree3	“I prefer to shop on-line or by internet for certain items.”
Agree4	“I prefer to shop by catalog for certain items.”
Agree5	“I prefer to shop in stores that are closest to my home.”

Data (Observations 1 – 40)			Data (Obs. 41 – 80)			Data (Obs. 81-120)		
Agree3	Agree4	Agree5	Agree3	Agree4	Agree5	Agree3	Agree4	Agree5
5	1	1	3	3	3	5	2	3
4	2	4	4	5	5	3	2	3
4	3	2	1	1	3	5	3	1
5	4	2	2	5	4	4	3	1
5	3	4	2	5	3	3	1	5
2	3	1	2	5	3	4	1	4
5	1	5	3	3	5	3	2	4
5	2	1	3	3	3	2	1	1
4	2	3	3	2	3	3	4	1
5	3	2	4	3	3	2	1	5
2	5	4	4	2	4	4	3	3
3	1	5	3	1	4	5	3	4
5	2	3	4	2	1	1	3	4
5	2	3	1	3	5	2	3	2
2	3	4	3	2	2	4	1	4
2	4	4	5	1	1	5	5	4
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3	5	5	1	4	2	5	3	4
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4	2	5	1	4	5	3	4	4
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2	1	4	5	4	1	1	3	5
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2	1	3	3	2	4	4	3	1
3	2	1	2	1	2	2	2	2
1	5	3	2	5	1	5	5	4
3	3	1	5	1	1	2	5	5
3	4	5	5	1	2	5	1	3
5	1	2	3	5	4	3	1	5
4	1	2	3	3	4	3	5	2





General Linear Model

Within-Subjects Factors

Measure: MEASURE_1

format	Dependent Variable
1	agree3
2	agree4
3	agree5

Descriptive Statistics

	Mean	Std. Deviation	N
I prefer to shop on-line or by Internet for certain items.	3.4333	1.33934	120
I prefer to shop by catalog for certain items.	2.9167	1.47006	120
I prefer to shop in stores that are closest to my home.	3.0333	1.40188	120

Multivariate Tests^b

Effect	Value	F	Hypothesis df	Error df	Sig.
format Pillai's Trace	.058	3.624 ^a	2.000	118.000	.030
Wilks' Lambda	.942	3.624 ^a	2.000	118.000	.030
Hotelling's Trace	.061	3.624 ^a	2.000	118.000	.030
Roy's Largest Root	.061	3.624 ^a	2.000	118.000	.030

a. Exact statistic

b.

Design: Intercept

Within Subjects Design: format

Mauchly's Test of Sphericity^b

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon ^a		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
format	.977	2.756	2	.252	.977	.994	.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: format

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
format Sphericity Assumed	17.622	2	8.811	4.152	.017
Greenhouse-Geisser	17.622	1.955	9.015	4.152	.018
Huynh-Feldt	17.622	1.987	8.868	4.152	.017
Lower-bound	17.622	1.000	17.622	4.152	.044
Error(format) Sphericity Assumed	505.044	238	2.122		
Greenhouse-Geisser	505.044	232.630	2.171		
Huynh-Feldt	505.044	236.469	2.136		
Lower-bound	505.044	119.000	4.244		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

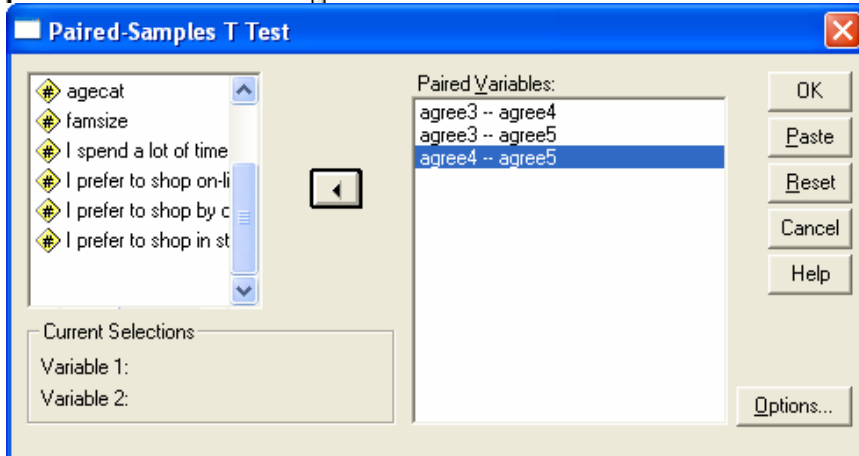
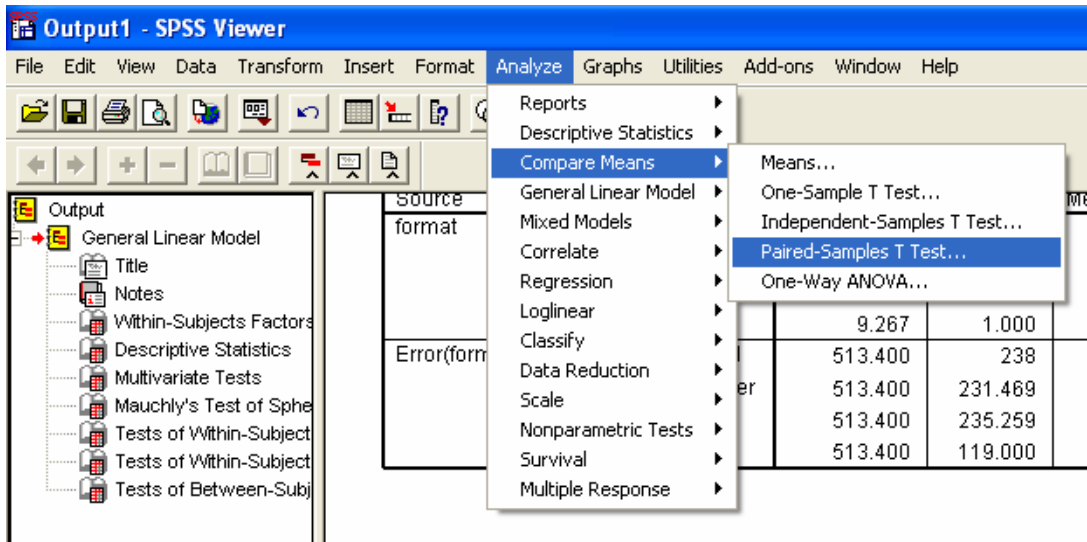
Source	format	Type III Sum of Squares	df	Mean Square	F	Sig.
format	Linear	9.600	1	9.600	4.225	.042
	Quadratic	8.022	1	8.022	4.068	.046
Error(format)	Linear	270.400	119	2.272		
	Quadratic	234.644	119	1.972		

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	3521.878	1	3521.878	2101.237	.000
Error	199.456	119	1.676		



T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I prefer to shop on-line or by Internet for certain items.	3.4333	120	1.33934	.12226
	I prefer to shop by catalog for certain items.	2.9167	120	1.47006	.13420
Pair 2	I prefer to shop on-line or by Internet for certain items.	3.4333	120	1.33934	.12226
	I prefer to shop in stores that are closest to my home.	3.0333	120	1.40188	.12797
Pair 3	I prefer to shop by catalog for certain items.	2.9167	120	1.47006	.13420
	I prefer to shop in stores that are closest to my home.	3.0333	120	1.40188	.12797

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	I prefer to shop on-line or by Internet for certain items. & I prefer to shop by catalog for certain items.	120	-.161	.079
Pair 2	I prefer to shop on-line or by Internet for certain items. & I prefer to shop in stores that are closest to my home.	120	-.209	.022
Pair 3	I prefer to shop by catalog for certain items. & I prefer to shop in stores that are closest to my home.	120	.128	.164

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	I prefer to shop on-line or by Internet for certain items. - I prefer to shop by catalog for certain items.	.51667	2.14195	.19553	.12949	.90384	2.642	119	.009
Pair 2	I prefer to shop on-line or by Internet for certain items. - I prefer to shop in stores that are closest to my home.	.40000	2.13179	.19461	.01466	.78534	2.055	119	.042
Pair 3	I prefer to shop by catalog for certain items. - I prefer to shop in stores that are closest to my home.	-.11667	1.89729	.17320	-.45962	.22628	-.674	119	.502