Univariate Analysis of Variance

E:\clients\Effect of Music.sav

Between-Subjects Factors

		Value Label	N
Music Group (1=Classical, 2=Pop, 3=Silence)	1.00	Classical	6
	2.00	Pop	7
	3.00	Silence	7

Tests of Between-Subjects Effects

Dependent Variable: Mood After Music

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1278.311[a]	3	426.104	203.582	.000
Intercept	13.926	1	13.926	6.653	.020
group	1249.145	2	624.572	298.406	.000
pre_mood	12.797	1	12.797	6.114	.025
Error	33.489	16	2.093		
Total	75488.000	20			
Corrected Total	1311.800	19			

a. R Squared = .974 (Adjusted R Squared = .970)

Parameter Estimates

Dependent Variable: Mood After Music

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	21.139	12.204	1.732	.102	-4.732	47.011
[group=1.00]	20.301	.839	24.192	.000	18.522	22.080
[group=2.00]	10.314	.780	13.218	.000	8.660	11.968
[group=3.00]	0[a]	.	.	.	.	.
pre_mood	.601	.243	2.473	.025	.086	1.117

a. This parameter is set to zero because it is redundant.

Estimated Marginal Means

Music Group (1=Classical, 2=Pop, 3=Silence)

Estimates

Dependent Variable: Mood After Music

Music Group (1=Classical, 2=Pop, 3=Silence)	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Classical	71.501[a]	.624	70.177	72.825
Pop	61.514[a]	.564	60.318	62.710
Silence	51.200[a]	.548	50.038	52.361

a. Covariates appearing in the model are evaluated at the following values: Mood Before Music = 50.0000.

Pairwise Comparisons

Dependent Variable: Mood After Music

(I) Music Group (1=Classical, 2=Pop, 3=Silence)	(J) Music Group (1=Classical, 2=Pop, 3=Silence)	Mean Difference (I-J)	Std. Error	Sig.[b]
Classical	Pop	9.987*	.874	.000
	Silence	20.301*	.839	.000
Pop	Classical	-9.987*	.874	.000
	Silence	10.314*	.780	.000
Silence	Classical	-20.301*	.839	.000
	Pop	-10.314*	.780	.000

Pairwise Comparisons

Dependent Variable: Mood After Music

(I) Music Group (1=Classical, 2=Pop, 3=Silence)	(J) Music Group (1=Classical, 2=Pop, 3=Silence)	95% Confidence Interval for Difference[b]	
		Lower Bound	Upper Bound
Classical	Pop	7.650	12.325
	Silence	18.058	22.544
Pop	Classical	-12.325	-7.650
	Silence	8.228	12.400
Silence	Classical	-22.544	-18.058
	Pop	-12.400	-8.228

Based on estimated marginal means

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

b. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Dependent Variable: Mood After Music

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	1249.145	2	624.572	298.406	.000
Error	33.489	16	2.093		

The F tests the effect of Music Group (1=Classical, 2=Pop, 3=Silence). This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Oneway

ANOVA

Logic Task Accuracy

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.464	2	2.732	4.516	.027
Within Groups	10.286	17	.605		
Total	15.750	19			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Logic Task Accuracy

	(I) Music Group (1=Classical, 2=Pop, 3=Silence)	(J) Music Group (1=Classical, 2=Pop, 3=Silence)	Mean Difference (I-J)	Std. Error
Tukey HSD	Classical	Pop	1.28571*	.43275
		Silence	.85714	.43275
	Pop	Classical	-1.28571*	.43275
		Silence	-.42857	.41578
	Silence	Classical	-.85714	.43275
		Pop	.42857	.41578
Bonferroni	Classical	Pop	1.28571*	.43275
		Silence	.85714	.43275
	Pop	Classical	-1.28571*	.43275
		Silence	-.42857	.41578
	Silence	Classical	-.85714	.43275
		Pop	.42857	.41578

Multiple Comparisons

Dependent Variable: Logic Task Accuracy

	(I) Music Group (1=Classical, 2=Pop, 3=Silence)	(J) Music Group (1=Classical, 2=Pop, 3=Silence)	Sig.	95% ... Lower Bound
Tukey HSD	Classical	Pop	.022	.1755
		Silence	.147	-.2530
	Pop	Classical	.022	-2.3959
		Silence	.568	-1.4952
	Silence	Classical	.147	-1.9673
		Pop	.568	-.6380
Bonferroni	Classical	Pop	.026	.1368
		Silence	.192	-.2918
	Pop	Classical	.026	-2.4347
		Silence	.951	-1.5325
	Silence	Classical	.192	-2.0061
		Pop	.951	-.6753

Multiple Comparisons

Dependent Variable: Logic Task Accuracy

	(I) Music Group (1=Classical, 2=Pop, 3=Silence)	(J) Music Group (1=Classical, 2=Pop, 3=Silence)	95% Confidence . Upper Bound
Tukey HSD	Classical	Pop	2.3959
		Silence	1.9673
	Pop	Classical	-.1755
		Silence	.6380
	Silence	Classical	.2530
		Pop	1.4952
Bonferroni	Classical	Pop	2.4347
		Silence	2.0061
	Pop	Classical	-.1368
		Silence	.6753
	Silence	Classical	.2918
		Pop	1.5325

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Logic Task Accuracy

	Music Group (1=Classical, 2=Pop, 3=Silence)	N	Subset for alpha = 0.05	
			1	2
Tukey HSD[a,b]	Pop	7	6.7143	
	Silence	7	7.1429	7.1429
	Classical	6		8.0000
	Sig.		.585	.141

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.632.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.