

More JMP Analysis for Solitary Confinement Experiment

Response: Frequency (Hz)

Summary of Fit

RSquare	0.958831
RSquare Adj	0.932529
Root Mean Square Error	1.683251
Mean of Response	13.8
Observations (or Sum Wgts)	60

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	23	2375.6000	103.287	36.4542
Error	36	102.0000	2.833	Prob > F
C. Total	59	2477.6000		<.0001

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Solitary	248.067	248.067	1	2.7731	0.1132
Prisoner[Solitary]&Random	1610.2	89.4556	18	31.5725	<.0001
Day	256.9	128.45	2	45.3353	<.0001
Solitary*Day	260.433	130.217	2	45.9588	<.0001

Effect Details

Solitary

Effect Test

Sum of Squares	F Ratio	DF	Prob > F
248.06667	2.7731	1	0.1132

Denominator MS Synthesis: Prisoner[Solitary]&Random

Least Squares Means Table

Level	Least Sq Mean	Std Error	Mean
No	15.833333	1.7268039	15.8333
Yes	11.766667	1.7268039	11.7667

Day

Effect Test

Sum of Squares	F Ratio	DF	Prob > F
256.90000	45.3353	2	<.0001

Denominator MS Synthesis: Residual

Least Squares Means Table

Level	Least Sq Mean	Std Error	Mean
1	16.650000	0.37638633	16.6500
4	12.950000	0.37638633	12.9500
7	11.800000	0.37638633	11.8000

LSMeans Differences Student's t

$\alpha = 0.050$ $t = 2.02809$

LSMean[i] By LSMean[j]

Mean[i]-Mean[j]	1	4	7
Std Err Dif			
Lower CL Dif			
Upper CL Dif			
1	0	3.7	4.85
	0	0.53229	0.53229
	0	2.62046	3.77046
	0	4.77954	5.92954
4	-3.7	0	1.15
	0.53229	0	0.53229
	-4.7795	0	0.07046
	-2.6205	0	2.22954
7	-4.85	-1.15	0
	0.53229	0.53229	0
	-5.9295	-2.2295	0
	-3.7705	-0.0705	0

Level		Least Sq Mean
1	A	16.650000
4	B	12.950000
7	C	11.800000

Levels not connected by same letter are significantly different.

Solitary*Day

Effect Test

Sum of Squares	F Ratio	DF	Prob > F
260.43333	45.9588	2	<.0001

Denominator MS Synthesis: Residual

Least Squares Means Table

Level	Least Sq Mean
No, 1	15.800000
No, 4	15.900000
No, 7	15.800000
Yes, 1	17.500000
Yes, 4	10.000000
Yes, 7	7.800000

