

JMP Analysis of Unbalanced Recall Experiment

Response: Recall

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	791.1212	158.224	11.9227
Error	16	212.3333	13.271	Prob > F
C. Total	21	1003.4545		<.0001

Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Reinforce	1	1	66.15000	4.9846	0.0402
IsoTime	2	2	210.50877	7.9313	0.0040
Reinforce*IsoTime	2	2	553.93734	20.8705	<.0001

Effect Details

Reinforce

Least Squares Means Table

Level	Least Sq Mean	Std Error	Mean
N	22.055556	1.1085039	22.8182
V	25.555556	1.1085039	26.0909

LSMeans Differences Student's t

$\alpha =$

0.050 $t =$

2.11991

LSMean[i] By LSMean[j]

Mean[i]-Mean[j]	N	V
Std Err Dif		
Lower CL Dif		
Upper CL Dif		
N	0	-3.5
	0	1.56766
	0	-6.8233
	0	-0.1767
V	3.5	0
	1.56766	0
	0.17671	0
	6.82329	0

Level	Least Sq Mean
V A	25.555556
N B	22.055556

Levels not connected by same letter are significantly different.

JMP Analysis of Unbalanced Recall Experiment

IsoTime

Least Squares Means Table

Level	Least Sq Mean	Std Error	Mean
20	20.833333	1.3911613	21.0000
40	28.000000	1.2879651	28.0000
60	22.583333	1.3911613	23.8571

LSMeans Differences Student's t

$\alpha=0.050$ $t=2.11991$

LSMean[i] By LSMean[j]

Mean[i]-Mean[j]	20	40	60
Std Err Dif			
Lower CL Dif			
Upper CL Dif			
20	0	-7.1667	-1.75
	0	1.89583	1.9674
	0	-11.186	-5.9207
	0	-3.1477	2.4207
40	7.16667	0	5.41667
	1.89583	0	1.89583
	3.14768	0	1.39768
	11.1857	0	9.43565
60	1.75	-5.4167	0
	1.9674	1.89583	0
	-2.4207	-9.4357	0
	5.9207	-1.3977	0

Level		Least Sq Mean
40	A	28.000000
60	B	22.583333
20	B	20.833333

Levels not connected by same letter are significantly different.

Reinforce*IsoTime

Least Squares Means Table

Level	Least Sq Mean	Std Error
N,20	22.000000	1.8214577
N,40	30.500000	1.8214577
N,60	13.666667	2.1032382
V,20	19.666667	2.1032382
V,40	25.500000	1.8214577
V,60	31.500000	1.8214577

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LSMeans Differences Tukey HSD

$\alpha=0.050$ $Q=3.22215$

LSMean[i] By LSMean[j]

Mean[i]-Mean[j] Std Err Dif Lower CL Dif Upper CL Dif	N,20	N,40	N,60	V,20	V,40	V,60
N,20	0 0 0 0	-8.5 2.57593 -16.8 -0.2	8.33333 2.78232 -0.6317 17.2984	2.33333 2.78232 -6.6317 11.2984	-3.5 2.57593 -11.8 4.80003	-9.5 2.57593 -17.8 -1.2
N,40	8.5 2.57593 0.19997 16.8	0 0 0 0	16.8333 2.78232 7.86828 25.7984	10.8333 2.78232 1.86828 19.7984	5 2.57593 -3.3 13.3	-1 2.57593 -9.3 7.30003
N,60	-8.3333 2.78232 -17.298 0.63172	-16.833 2.78232 -25.798 -7.8683	0 0 0 0	-6 2.97443 -15.584 3.58404	-11.833 2.78232 -20.798 -2.8683	-17.833 2.78232 -26.798 -8.8683
V,20	-2.3333 2.78232 -11.298 6.63172	-10.833 2.78232 -19.798 -1.8683	6 2.97443 -3.584 15.584	0 0 0 0	-5.8333 2.78232 -14.798 3.13172	-11.833 2.78232 -20.798 -2.8683
V,40	3.5 2.57593 -4.8 11.8	-5 2.57593 -13.3 3.30003	11.8333 2.78232 2.86828 20.7984	5.83333 2.78232 -3.1317 14.7984	0 0 0 0	-6 2.57593 -14.3 2.30003
V,60	9.5 2.57593 1.19997 17.8	1 2.57593 -7.3 9.30003	17.8333 2.78232 8.86828 26.7984	11.8333 2.78232 2.86828 20.7984	6 2.57593 -2.3 14.3	0 0 0 0

Level		Least Sq Mean
V,60	A	31.500000
N,40	A	30.500000
V,40	A B	25.500000
N,20	B C	22.000000
V,20	B C	19.666667
N,60	C	13.666667

Levels not connected by same letter are significantly different.