

## The MEANS Procedure

Variable	N	Mean	Std Dev
LowVoice	200	5.555	1.643
MedVoice	200	4.520	1.810
HighVoice	200	3.530	1.804
LowMusic	200	6.535	1.428
MedMusic	200	6.425	1.571
HighMusic	200	6.555	1.489
ASvoice	200	13.605	4.073
ASmusic	200	19.515	3.181
low	200	12.090	2.448
med	200	10.945	2.720
high	200	10.085	2.699

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**The GLM Procedure**

Number of Observations Read	200
Number of Observations Used	200

**The GLM Procedure**

**Dependent Variable: LowVoice**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	6171.605000	6171.605000	2285.38	<.0001
Error	199	537.395000	2.700477		
Uncorrected Total	200	6709.000000			

R-Square	Coeff Var	Root MSE	LowVoice Mean
0.000000	29.58259	1.643313	5.555000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	6171.605000	6171.605000	2285.38	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	6171.605000	6171.605000	2285.38	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	5.555000000	0.11619977	47.81	<.0001

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**The GLM Procedure**

**Dependent Variable: MedVoice**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	4086.080000	4086.080000	1247.28	<.0001
Error	199	651.920000	3.275980		
Uncorrected Total	200	4738.000000			

R-Square	Coeff Var	Root MSE	MedVoice Mean
0.000000	40.04351	1.809967	4.520000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	4086.080000	4086.080000	1247.28	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	4086.080000	4086.080000	1247.28	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	4.520000000	0.12798398	35.32	<.0001

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**The GLM Procedure**

**Dependent Variable: HighVoice**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	2492.180000	2492.180000	765.56	<.0001
Error	199	647.820000	3.255377		
Uncorrected Total	200	3140.000000			

R-Square	Coeff Var	Root MSE	HighVoice Mean
0.000000	51.11236	1.804266	3.530000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	2492.180000	2492.180000	765.56	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	2492.180000	2492.180000	765.56	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	3.530000000	0.12758089	27.67	<.0001

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**The GLM Procedure**

**Dependent Variable: LowMusic**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	8541.245000	8541.245000	4189.00	<.0001
Error	199	405.755000	2.038970		
Uncorrected Total	200	8947.000000			

R-Square	Coeff Var	Root MSE	LowMusic Mean
0.000000	21.85042	1.427925	6.535000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	8541.245000	8541.245000	4189.00	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	8541.245000	8541.245000	4189.00	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	6.535000000	0.10096955	64.72	<.0001

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**The GLM Procedure**

**Dependent Variable: MedMusic**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	8256.125000	8256.125000	3347.02	<.0001
Error	199	490.875000	2.466709		
Uncorrected Total	200	8747.000000			

R-Square	Coeff Var	Root MSE	MedMusic Mean
0.000000	24.44476	1.570576	6.425000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	8256.125000	8256.125000	3347.02	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	8256.125000	8256.125000	3347.02	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	6.425000000	0.11105648	57.85	<.0001

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**The GLM Procedure**

**Dependent Variable: HighMusic**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	8593.605000	8593.605000	3874.37	<.0001
Error	199	441.395000	2.218065		
Uncorrected Total	200	9035.000000			

R-Square	Coeff Var	Root MSE	HighMusic Mean
0.000000	22.72032	1.489317	6.555000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	8593.605000	8593.605000	3874.37	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	8593.605000	8593.605000	3874.37	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	6.555000000	0.10531062	62.24	<.0001



# Distract study

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### The GLM Procedure

#### Repeated Measures Analysis of Variance

Repeated Measures Level Information						
Dependent Variable	LowVoice	MedVoice	HighVoice	LowMusic	MedMusic	HighMusic
Level of Distract	1	1	1	2	2	2
Level of Volume	1	2	3	1	2	3

MANOVA Test Criteria and Exact F Statistics for the Hypothesis of no Distract Effect H = Type III SSCP Matrix for Distract E = Error SSCP Matrix  S=1 M=-0.5 N=98.5					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.25968419	567.32	1	199	<.0001
Pillai's Trace	0.74031581	567.32	1	199	<.0001
Hotelling-Lawley Trace	2.85083130	567.32	1	199	<.0001
Roy's Greatest Root	2.85083130	567.32	1	199	<.0001

MANOVA Test Criteria and Exact F Statistics for the Hypothesis of no Volume Effect H = Type III SSCP Matrix for Volume E = Error SSCP Matrix  S=1 M=0 N=98					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.64186860	55.24	2	198	<.0001
Pillai's Trace	0.35813140	55.24	2	198	<.0001
Hotelling-Lawley Trace	0.55795128	55.24	2	198	<.0001
Roy's Greatest Root	0.55795128	55.24	2	198	<.0001

MANOVA Test Criteria and Exact F Statistics for the Hypothesis of no Distract*Volume Effect H = Type III SSCP Matrix for Distract*Volume E = Error SSCP Matrix  S=1 M=0 N=98					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.62324424	59.85	2	198	<.0001
Pillai's Trace	0.37675576	59.85	2	198	<.0001
Hotelling-Lawley Trace	0.60450741	59.85	2	198	<.0001
Roy's Greatest Root	0.60450741	59.85	2	198	<.0001

# Distract study

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### The GLM Procedure

#### Repeated Measures Analysis of Variance

#### Univariate Tests of Hypotheses for Within Subject Effects

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Distract	1	1164.270000	1164.270000	567.32	<.0001
Error(Distract)	199	408.396667	2.052245		

Source	DF	Type III SS	Mean Square	F Value	Pr > F	Adj Pr > F	
						G - G	H - F
Volume	2	202.3550000	101.1775000	58.05	<.0001	<.0001	<.0001
Error(Volume)	398	693.6450000	1.7428266				

Greenhouse-Geisser Epsilon	0.9913
Huynh-Feldt Epsilon	1.0013

Source	DF	Type III SS	Mean Square	F Value	Pr > F	Adj Pr > F	
						G - G	H - F
Distract*Volume	2	209.7350000	104.8675000	58.82	<.0001	<.0001	<.0001
Error(Distract*Volume)	398	709.5983333	1.7829104				

Greenhouse-Geisser Epsilon	0.9930
Huynh-Feldt Epsilon	1.0030

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**The MEANS Procedure**

Variable	Label	t Value	Pr >  t
d12	Voice low vs Medium Difference	7.47	<.0001
d13	Voice low vs high Difference	15.19	<.0001
d23	Voice Medium vs high Difference	7.27	<.0001

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**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: d45 Music low vs Medium Difference**

Number of Observations Read	200
Number of Observations Used	200

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	0	0	.	.	.
Error	199	635.58000	3.19387		
Corrected Total	199	635.58000			

Root MSE	1.78714	R-Square	0.0000
Dependent Mean	0.11000	Adj R-Sq	0.0000
Coeff Var	1624.67272		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	Intercept	1	0.11000	0.12637	0.87	0.3851

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**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: d56 Music Medium vs high Difference**

Number of Observations Read	200
Number of Observations Used	200

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	0	0	.	.	.
Error	199	658.62000	3.30965		
Corrected Total	199	658.62000			

Root MSE	1.81924	R-Square	0.0000
Dependent Mean	-0.13000	Adj R-Sq	0.0000
Coeff Var	-1399.41836		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	Intercept	1	-0.13000	0.12864	-1.01	0.3134

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**The REG Procedure**  
**Model: MODEL1**  
**Multivariate Test: volume**

Multivariate Statistics and Exact F Statistics					
S=1 M=0 N=98					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99383613	0.61	2	198	0.5422
Pillai's Trace	0.00616387	0.61	2	198	0.5422
Hotelling-Lawley Trace	0.00620210	0.61	2	198	0.5422
Roy's Greatest Root	0.00620210	0.61	2	198	0.5422