Question 1

Obs	Before	After	Difference
1	186	188	2
2	171	177	6
3	177	176	-1
4	168	169	1
5	191	196	5
6	172	172	0
7	177	165	-12
8	191	190	-1
9	170	166	-4
10	171	180	9
11	188	181	-7
12	187	172	-15

Question 1

The UNIVARIATE Procedure
Variable: Difference

Moments			
N	12	Sum Weights	12
Mean	-1.4166667	Sum Observations	-17
Std Deviation	7.12815587	Variance	50.8106061
Skewness	-0.6094769	Kurtosis	-0.110357
Uncorrected SS	583	Corrected SS	558.916667
Coeff Variation	-503.16394	Std Error Mean	2.05772135

Basic Statistical Measures			
Location		Variability	
Mean	-1.41667	Std Deviation	7.12816
Median	-0.50000	Variance	50.81061
Mode	-1.00000	Range	24.00000
		Interquartile Range	9.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-0.68846	Pr > |t|	0.5054
Sign	M	-0.5	Pr >= |M|	1.0000
Signed Rank	S	-5	Pr >= |S|	0.7012

Quantiles (Definition 5)						
				Order Statistics		
Level	Quantile	95% Confidence Limits Distribution Free		LCL Rank	UCL Rank	Coverage
100% Max	9.0					
99%	9.0	.	.	.	.	.
95%	9.0	5	9	10	12	44.01
90%	6.0	5	9	10	12	60.67
75% Q3	3.5	-1	9	6	12	95.41
50% Median	-0.5	-7	5	3	10	96.14
25% Q1	-5.5	-15	0	1	7	95.41
10%	-12.0	-15	-7	1	3	60.67
5%	-15.0	-15	-7	1	3	44.01
1%	-15.0	.	.	.	.	.
0% Min	-15.0					

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-15	12	1	4
-12	7	2	1
-7	11	5	5

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-4	9	6	2
-1	8	9	10

Test for Location

Obs	VarName	Test	Testlab	Stat	pType	pValue	Mu0
1	Difference	Signed Rank	S	-5	Pr >= |S|	0.7012	0

Quantiles and 95% CIs for Quantiles

Obs	Quantile	Estimate	LCLRank	UCLRank
1	50% Median	-0.5	3	10

Means and Medians by Variety

mean1	mean2	mean3	mean4	median1	median2	median3	median4
8.95714	8.55714	9.67143	7.97143	9	8.4	9.6	8

Scores of Each Variety

Class	N	SumOfScores	StdDevOfSum	MeanScore
group1	7	116.50	18.81	16.64
group2	7	85.50	18.81	12.21
group3	7	173.50	18.81	24.79
group4	7	30.50	18.81	4.36

Means and Medians by Variety

mean1	mean2	median1	median2
9.67143	7.97143	9.6	8

Scores of Each Variety

Class	N	SumOfScores	StdDevOfSum	MeanScore
group3	7	77.00	7.82	11.00
group4	7	28.00	7.82	4.00

Kruskal-Wallis Test for Means betweeen Variety C and D

Obs	VISUAL	CLASS
1	10.1	1
2	10.0	1
3	9.6	1
4	9.3	1
5	9.8	1
6	9.5	1
7	9.4	1
8	7.8	2
9	8.2	2
10	8.1	2
11	7.9	2
12	7.7	2
13	8.0	2
14	8.1	2

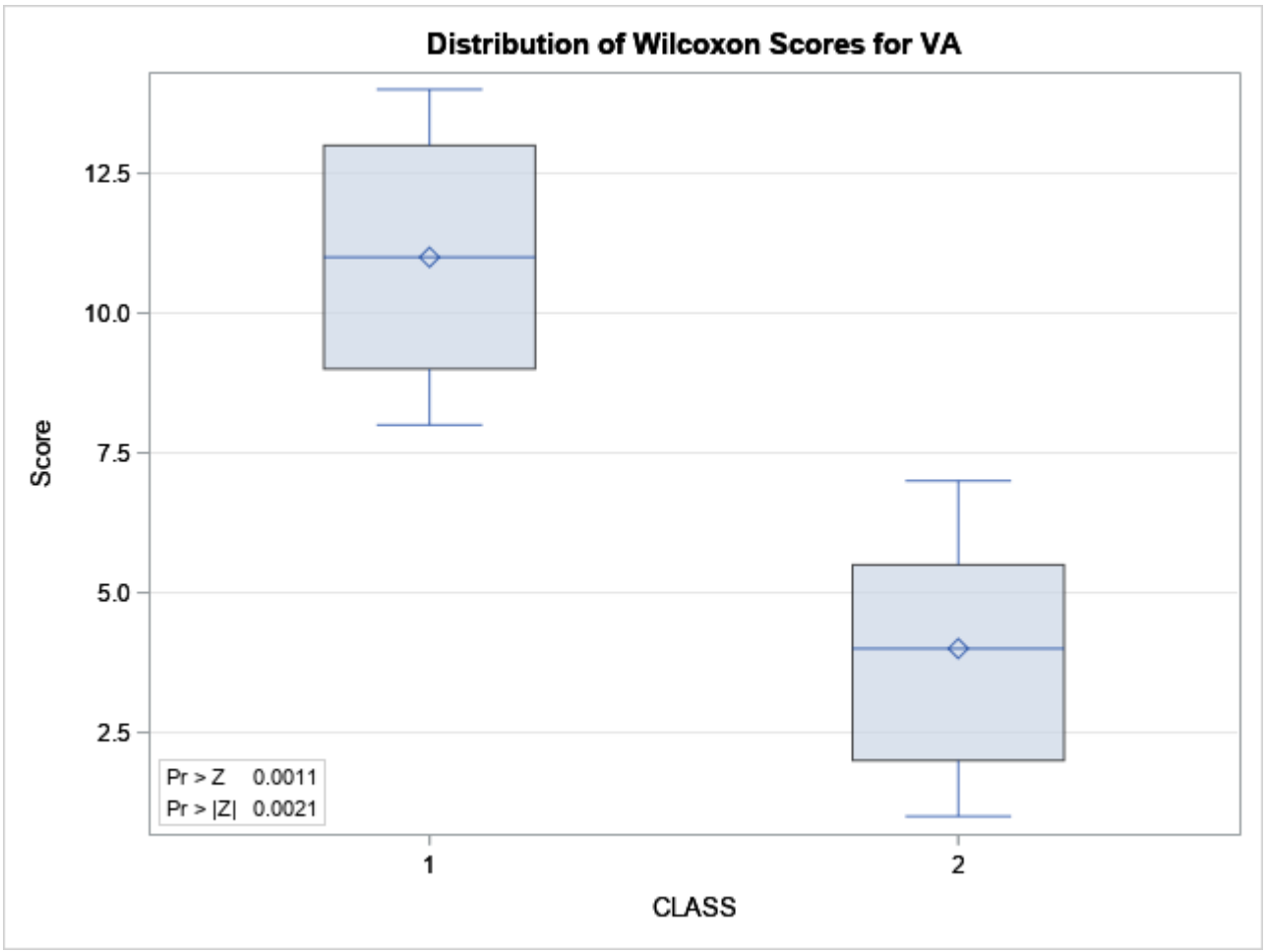
Kruskal-Wallis Test for Means betweeen Variety C and D

The NPAR1WAY Procedure

Wilcoxon Scores (Rank Sums) for Variable VA Classified by Variable CLASS					
CLASS	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
1	7	77.0	52.50	7.817633	11.0
2	7	28.0	52.50	7.817633	4.0
Average scores were used for ties.					

Wilcoxon Two-Sample Test					
				t Approximation	
Statistic	Z	Pr > Z	Pr > |Z|	Pr > Z	Pr > |Z|
77.0000	3.0700	0.0011	0.0021	0.0045	0.0089
Z includes a continuity correction of 0.5.					

Kruskal-Wallis Test		
Chi-Square	DF	Pr > ChiSq
9.8216	1	0.0017



Kruskal-Wallis Test for Means betweeen Variety C and D

The NPAR1WAY Procedure

Wilcoxon Scores (Rank Sums) for Variable VA Classified by Variable CLASS					
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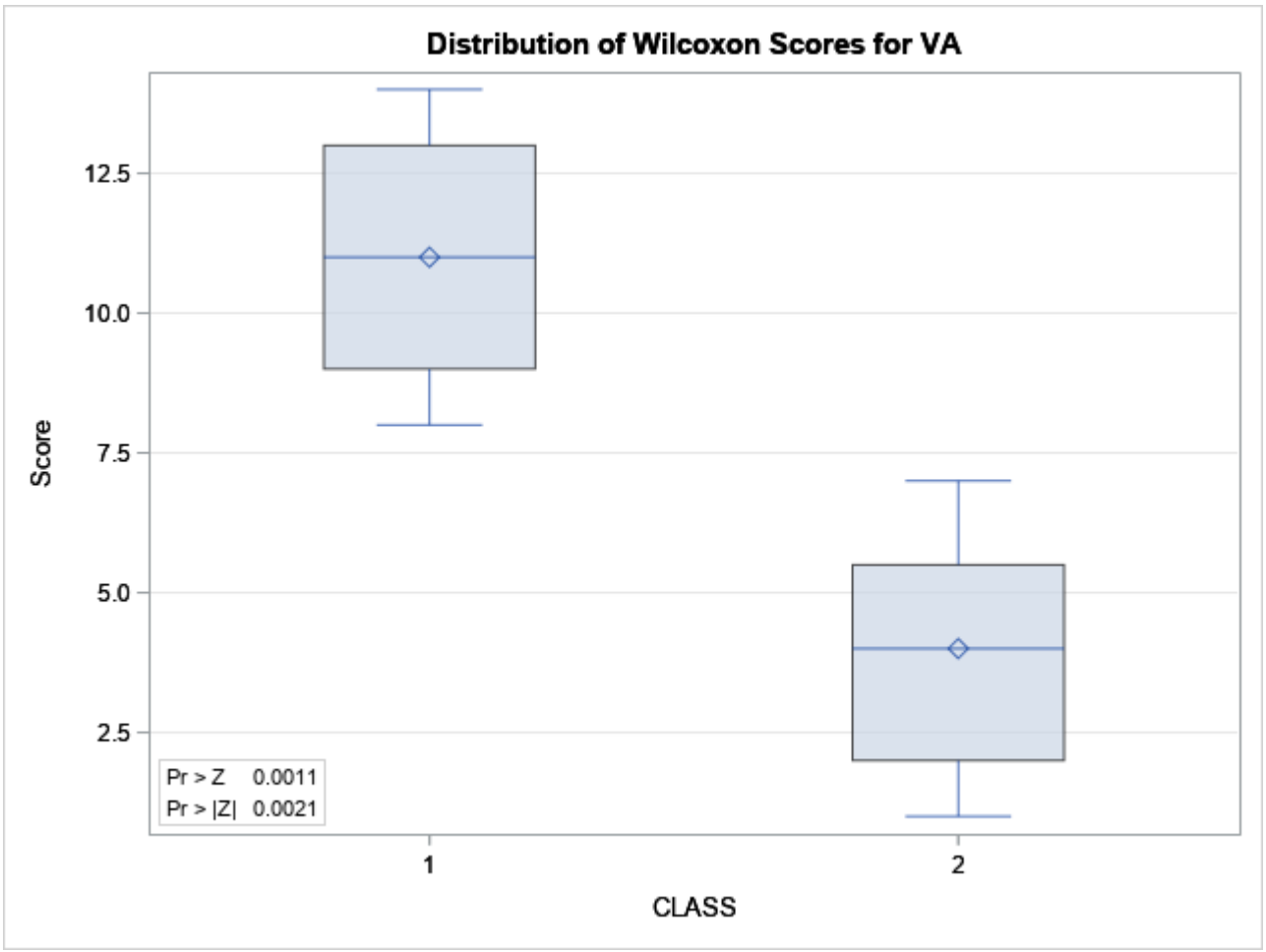


Wilcoxon Rank Sum Test---Test Statistic and P-value Output

Obs	VISUAL	CLASS	VA
1	10.1	1	13
2	10.0	1	12
3	9.6	1	10
4	9.3	1	7
5	9.8	1	11
6	9.5	1	9
7	9.4	1	8
8	7.8	2	2
9	8.2	2	6
10	8.1	2	5
11	7.9	2	3
12	7.7	2	1
13	8.0	2	4
14	8.1	2	5

Wilcoxon Rank Sum Test---Score Output

Obs	VISUAL	CLASS	VA
1	10.1	1	13
2	10.0	1	12
3	9.6	1	10
4	9.3	1	7
5	9.8	1	11
6	9.5	1	9
7	9.4	1	8
8	7.8	2	2
9	8.2	2	6
10	8.1	2	5
11	7.9	2	3
12	7.7	2	1
13	8.0	2	4
14	8.1	2	5

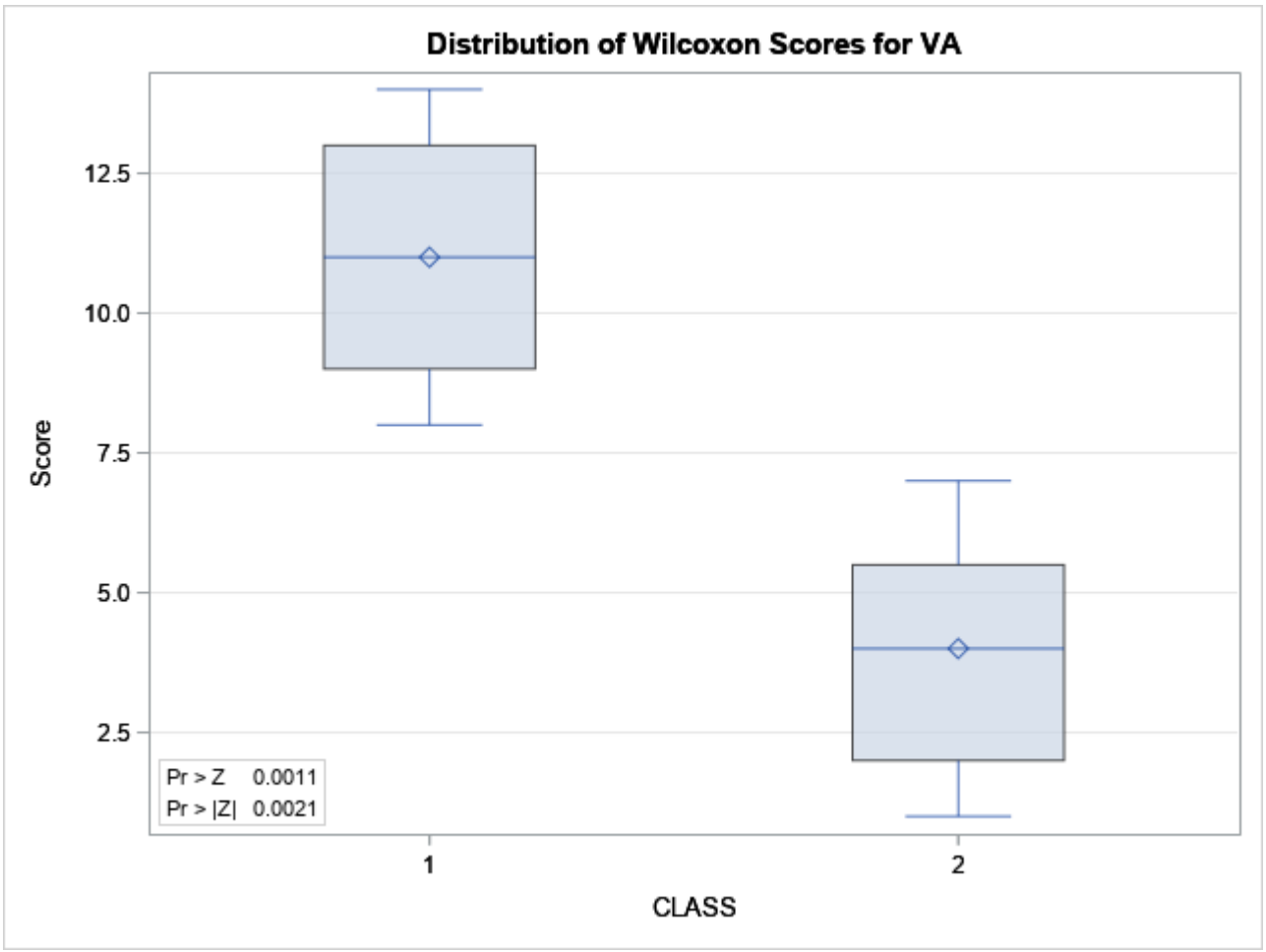
Wilcoxon Rank Sum Test---Score Output

The NPAR1WAY Procedure

Wilcoxon Scores (Rank Sums) for Variable VA Classified by Variable CLASS					
CLASS	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
1	7	77.0	52.50	7.817633	11.0
2	7	28.0	52.50	7.817633	4.0
Average scores were used for ties.					

Wilcoxon Two-Sample Test					
				t Approximation	
Statistic	Z	Pr > Z	Pr > |Z|	Pr > Z	Pr > |Z|
77.0000	3.0700	0.0011	0.0021	0.0045	0.0089
Z includes a continuity correction of 0.5.					

Kruskal-Wallis Test		
Chi-Square	DF	Pr > ChiSq
9.8216	1	0.0017



Wilcoxon Rank Sum Test---Test Statistic and P-value Output (Using Outout Deliveray System (ODS))

Obs	Variable	Statistic	Z	Prob1	Prob2	tProb1	tProb2
1	VA	77.0000	3.0700	0.0011	0.0021	0.0045	0.0089

Wilcoxon Rank Sum Test---Score Output (Using Outout Deliveray System (ODS))

Obs	Variable	Class	N	SumOfScores	ExpectedSum	StdDevOfSum	MeanScore
1	VA	1	7	77.0	52.50	7.817633	11.0
2	VA	2	7	28.0	52.50	7.817633	4.0

Question 3

Obs	Gender	Results	Count
1	1	1	125
2	1	2	59
3	1	3	21
4	2	1	101
5	2	2	79
6	2	3	16

Question 3

The FREQ Procedure

Frequency Expected	Table of Gender by Results			
	Results			
Gender	Yes	No	Uncertain	Total
Women	125 115.54	59 70.549	21 18.915	205
Men	101 110.46	79 67.451	16 18.085	196
Total	226	138	37	401

Statistics for Table of Gender by Results

Statistic	DF	Value	Prob
Chi-Square	2	5.9239	0.0517
Likelihood Ratio Chi-Square	2	5.9380	0.0514
Mantel-Haenszel Chi-Square	1	1.2498	0.2636
Phi Coefficient		0.1215	
Contingency Coefficient		0.1207	
Cramer's V		0.1215	

Sample Size = 401

Chisqure Test of 2x3 Contingency Table

Statistic	DF	Value	Prob
Chi-Square	2	5.9239	0.0517

Question 5

Obs	Executive	Method	Confidence
1	1	Utility	1.3
2	1	Worry	4.8
3	1	Comparis	9.2
4	2	Utility	2.5
5	2	Worry	6.9
6	2	Comparis	14.4
7	3	Utility	7.2
8	3	Worry	9.1
9	3	Comparis	16.5
10	4	Utility	6.8
11	4	Worry	13.2
12	4	Comparis	17.6
13	5	Utility	12.6
14	5	Worry	13.6
15	5	Comparis	15.5

Question 5

The GLM Procedure

Class Level Information		
Class	**Levels**	**Values**
Executive	5	1 2 3 4 5
Method	3	Comparis Utility Worry

Number of Observations Read	15
Number of Observations Used	15

Question 5

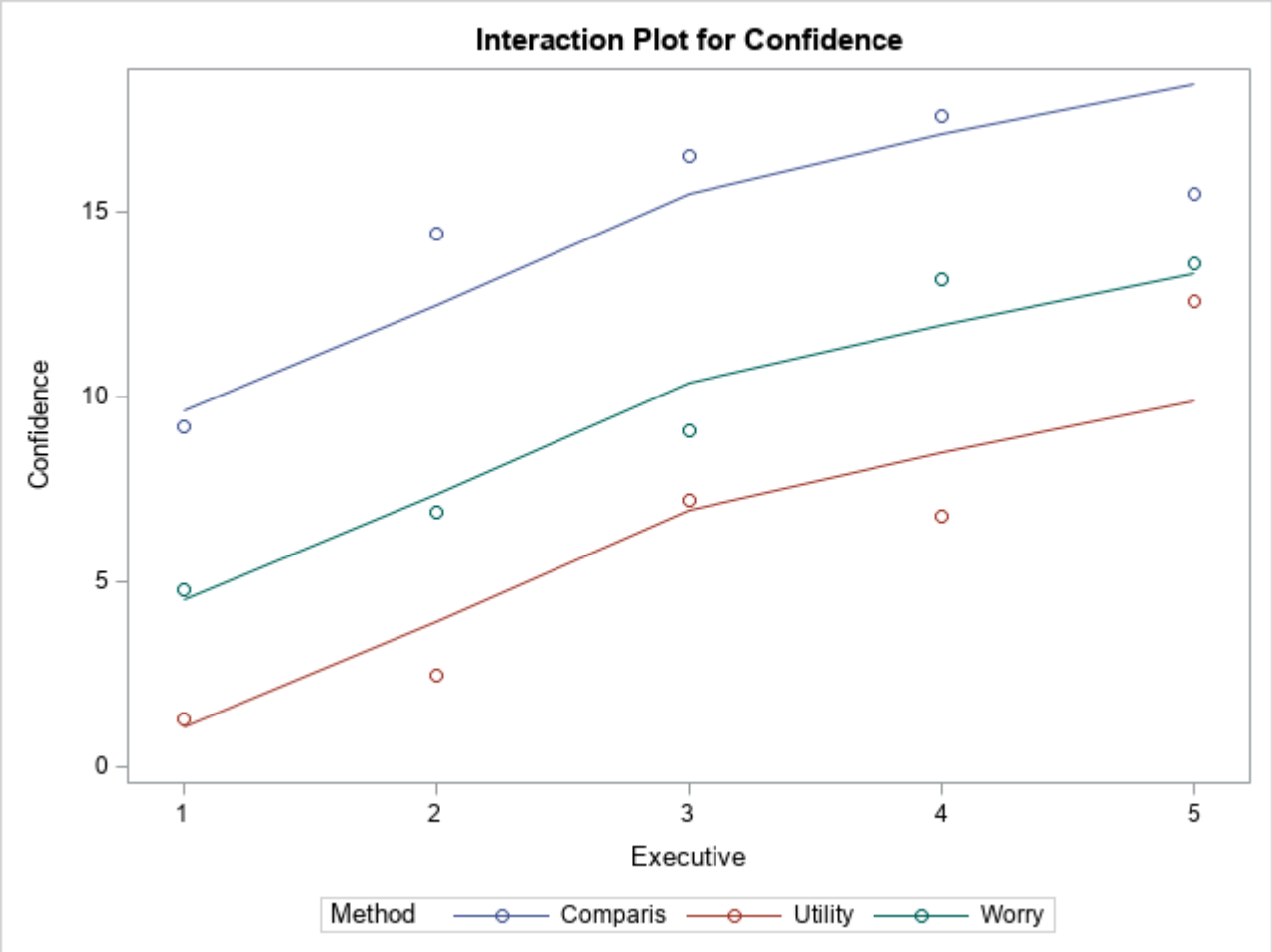
The GLM Procedure

Dependent Variable: Confidence

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	337.7800000	56.2966667	15.10	0.0006
Error	8	29.8240000	3.7280000		
Corrected Total	14	367.6040000			

R-Square	Coeff Var	Root MSE	Confidence Mean
0.918869	19.15479	1.930803	10.08000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Method	2	185.5360000	92.7680000	24.88	0.0004
Executive	4	152.2440000	38.0610000	10.21	0.0031



2-Way ANOVA For Test

The GLM Procedure

Class Level Information		
Class	**Levels**	**Values**
Executive	5	1 2 3 4 5
Method	3	Comparis Utility Worry

Number of Observations Read	15
Number of Observations Used	15

2-Way ANOVA For Test

The GLM Procedure

Dependent Variable: Confidence

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	337.7800000	56.2966667	15.10	0.0006
Error	8	29.8240000	3.7280000		
Corrected Total	14	367.6040000			

R-Square	Coeff Var	Root MSE	Confidence Mean
0.918869	19.15479	1.930803	10.08000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Executive	4	152.2440000	38.0610000	10.21	0.0031
Method	2	185.5360000	92.7680000	24.88	0.0004

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
Equality of confidence ratings among 1st and 3rd methods	1	65.5360000	65.5360000	17.58	0.0030
Equality of confidence ratings among 1st and 2nd methods	1	183.1840000	183.1840000	49.14	0.0001
Equality of confidence ratings among 2nd and 3rd methods	1	29.5840000	29.5840000	7.94	0.0226
Equality of confidence ratings among 1st and 2nd executives	1	12.0416667	12.0416667	3.23	0.1100
Equality of confidence ratings among 1st and 3rd executives	1	51.0416667	51.0416667	13.69	0.0060
Equality of confidence ratings among 1st and 4th executives	1	82.8816667	82.8816667	22.23	0.0015
Equality of confidence ratings among 1st and 5th executives	1	116.1600000	116.1600000	31.16	0.0005
Equality of confidence ratings among 2nd and 3rd executives	1	13.5000000	13.5000000	3.62	0.0935
Equality of confidence ratings among 2nd and 4th executives	1	31.7400000	31.7400000	8.51	0.0194
Equality of confidence ratings among 2nd and 5th executives	1	53.4016667	53.4016667	14.32	0.0054
Equality of confidence ratings among 3rd and 4th executives	1	3.8400000	3.8400000	1.03	0.3399
Equality of confidence ratings among 3rd and 5th executives	1	13.2016667	13.2016667	3.54	0.0966
Equality of confidence ratings among 4th and 5th executives	1	2.8016667	2.8016667	0.75	0.4112


Interaction Plot for Confidence
Confidence
15
10
5
0
1
2
3
4
5
Executive
Method
Comparis
Utility
Worry