8.2.2

One-way ANOVA: RA, LUPUS, PMRTA, OA, 0

Method

Null hypothesis	All means are equal
Alternative hypothesis	Not all means are equal
Significance level	α = 0.05

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Factor	5	RA, LUPUS, PMRTA, OA, 0

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	4	355.5	88.86	2.28	0.067
Error	91	3551.1	39.02		
Total	95	3906.6			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
6.24688	9.10%	5.10%	0.00%

Means

Factor	N	Mean	StDev	95% CI
RA	37	4.47	7.50	(2.43, 6.51)
LUPUS	9	4.58	3.99	(0.44, 8.71)
PMRTA	16	2.18	4.54	(-0.92, 5.28)
OA	24	5.205	4.622	(2.672, 7.737)
0	10	9.67	8.15	(5.75, 13.60)

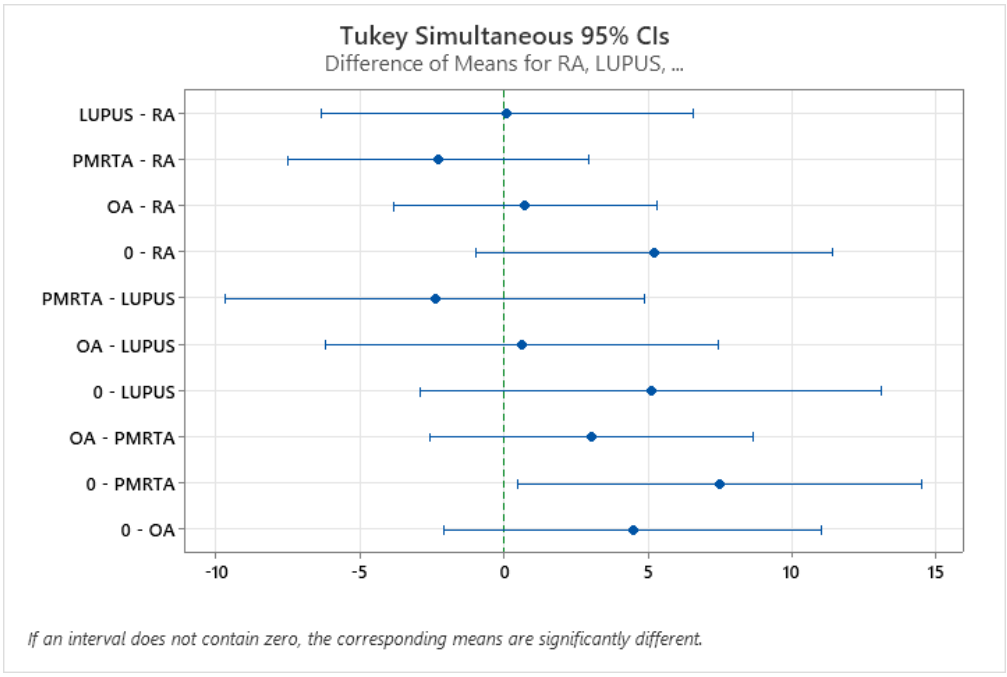
Pooled StDev = 6.24688

Tukey Pairwise Comparisons

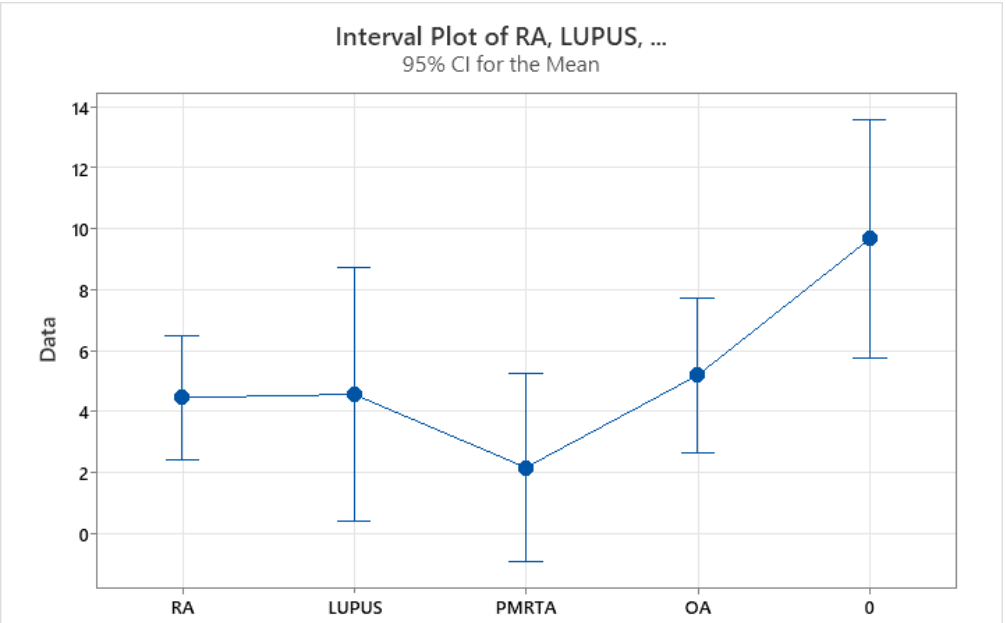
Grouping Information Using the Tukey Method and 95% Confidence

Factor	N	Mean	Grouping	
0	10	9.67	A	
OA	24	5.205	A	B
LUPUS	9	4.58	A	B
RA	37	4.47	A	B
PMRTA	16	2.18		B

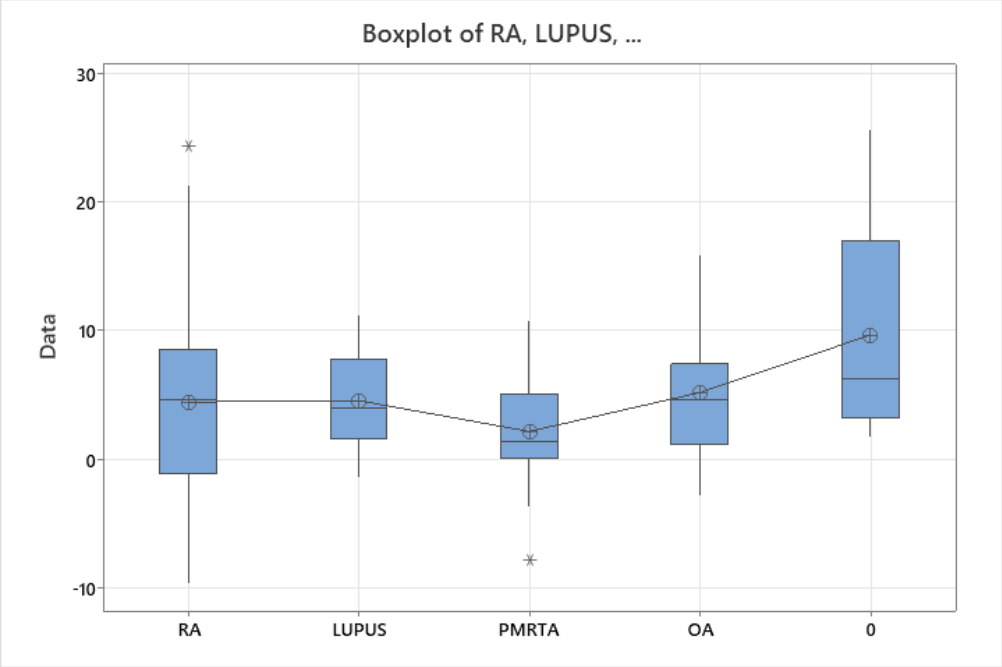
Means that do not share a letter are significantly different.



If an interval does not contain zero, the corresponding means are significantly different.



The pooled standard deviation is used to calculate the intervals.



8.2.1

EXR_C08_S02_01.CSV

One-way ANOVA: 30, 60, 90, 120

Method

Null hypothesis	All means are equal
Alternative hypothesis	Not all means are equal
Significance level	α = 0.05

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Factor	4	30, 60, 90, 120

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	3	20.01	6.669	6.24	0.000
Error	325	347.21	1.068		
Total	328	367.22			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
1.03361	5.45%	4.58%	3.35%

Means

Factor	N	Mean	StDev	95% CI
30	69	0.6877	0.7975	(0.4429, 0.9325)
60	33	0.240	0.977	(-0.114, 0.594)
90	194	0.8788	1.1204	(0.7328, 1.0248)
120	33	0.244	0.987	(-0.110, 0.598)

Pooled StDev = 1.03361

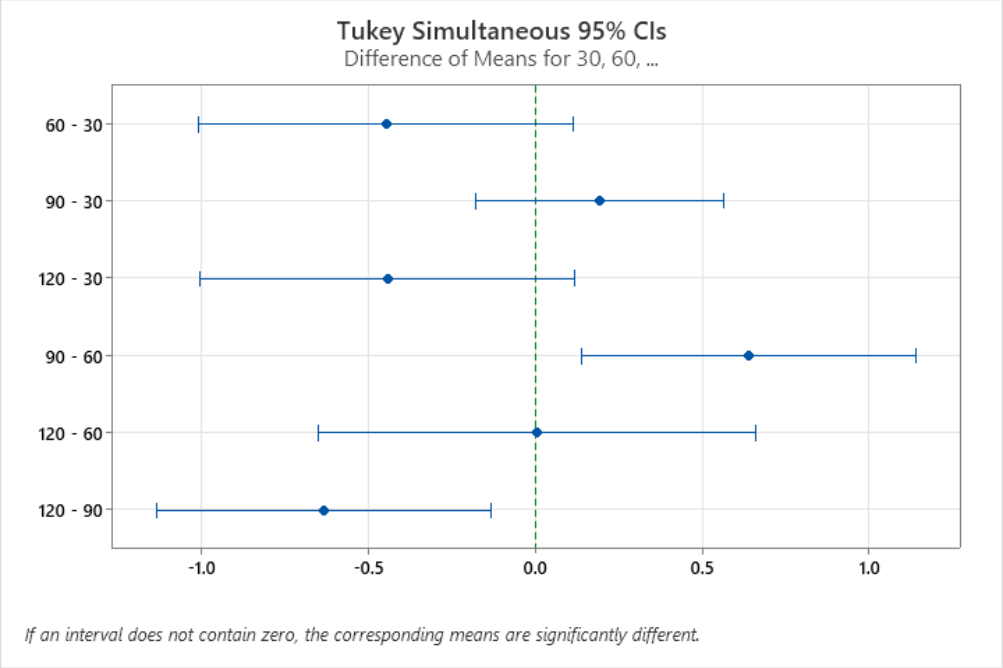
Tukey Pairwise Comparisons

Grouping Information Using the Tukey Method and 95% Confidence

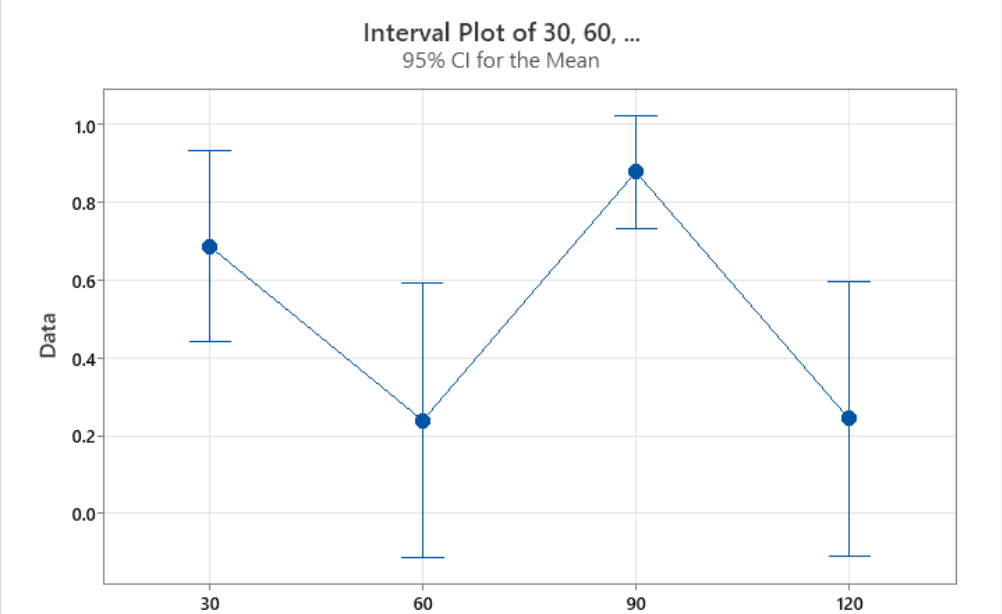
Factor	N	Mean	Grouping	
90	194	0.8788	A	
30	69	0.6877	A	B

120	33	0.244	B
60	33	0.240	B

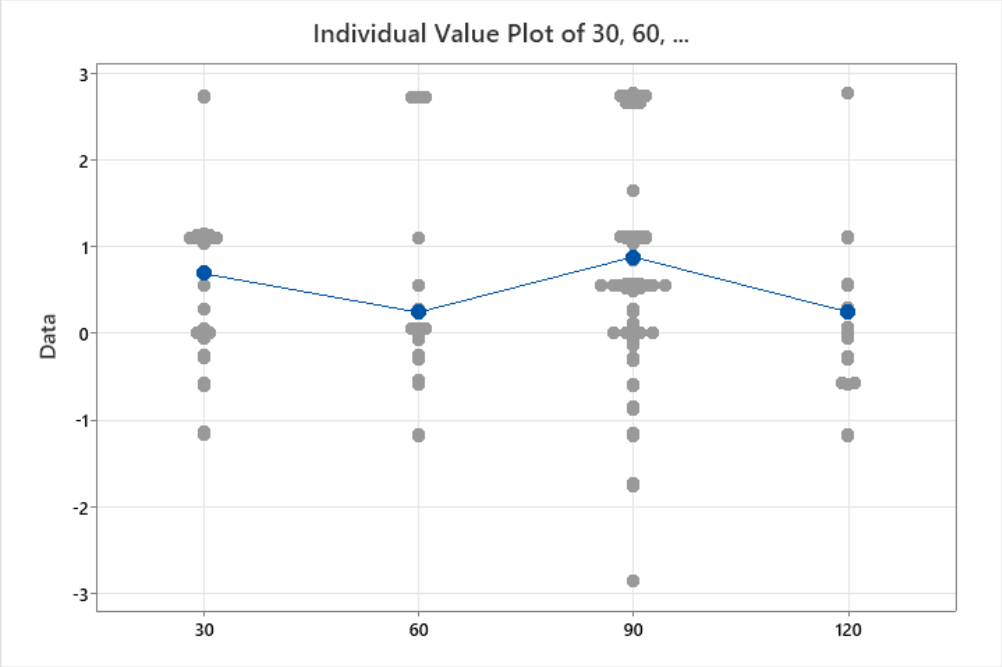
Means that do not share a letter are significantly different.

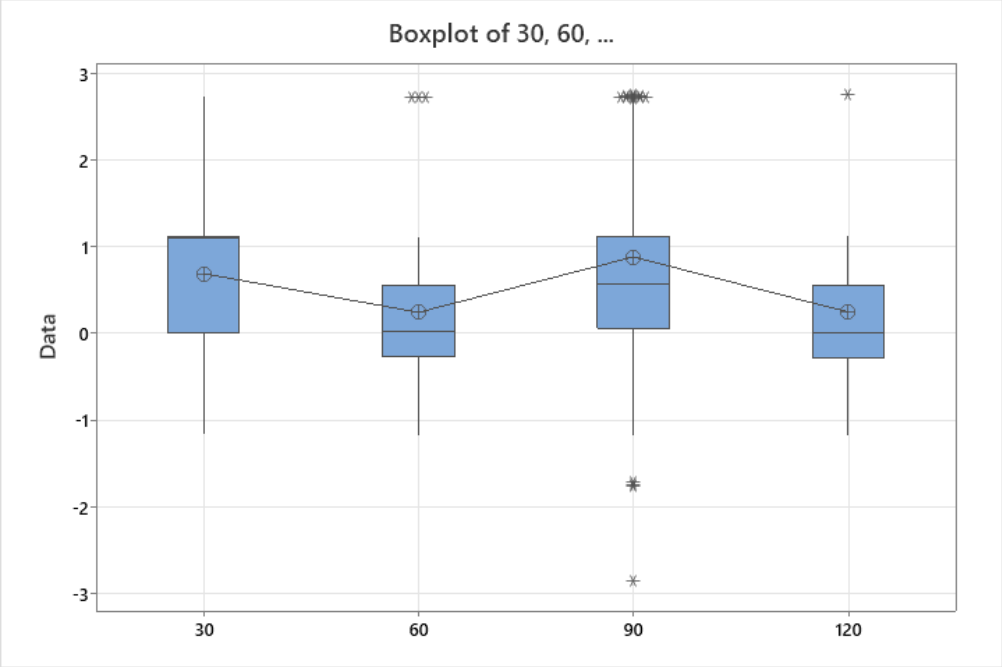


If an interval does not contain zero, the corresponding means are significantly different.



The pooled standard deviation is used to calculate the intervals.





8.2.3

EXR_C08_S02_03.CSV

One-way ANOVA: A, B, C, D

Method

Null hypothesis	All means are equal
Alternative hypothesis	Not all means are equal
Significance level	α = 0.05

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Factor	4	A, B, C, D

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	3	5931208	1977069	9.36	0.000
Error	109	23026500	211252		
Total	112	28957708			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
459.622	20.48%	18.29%	13.17%

Means

Factor	N	Mean	StDev	95% CI
A	22	1448	629	(1254, 1643)
B	14	993	627	(749, 1236)
C	29	873.8	304.7	(704.7, 1043.0)
D	48	851.7	385.9	(720.2, 983.2)

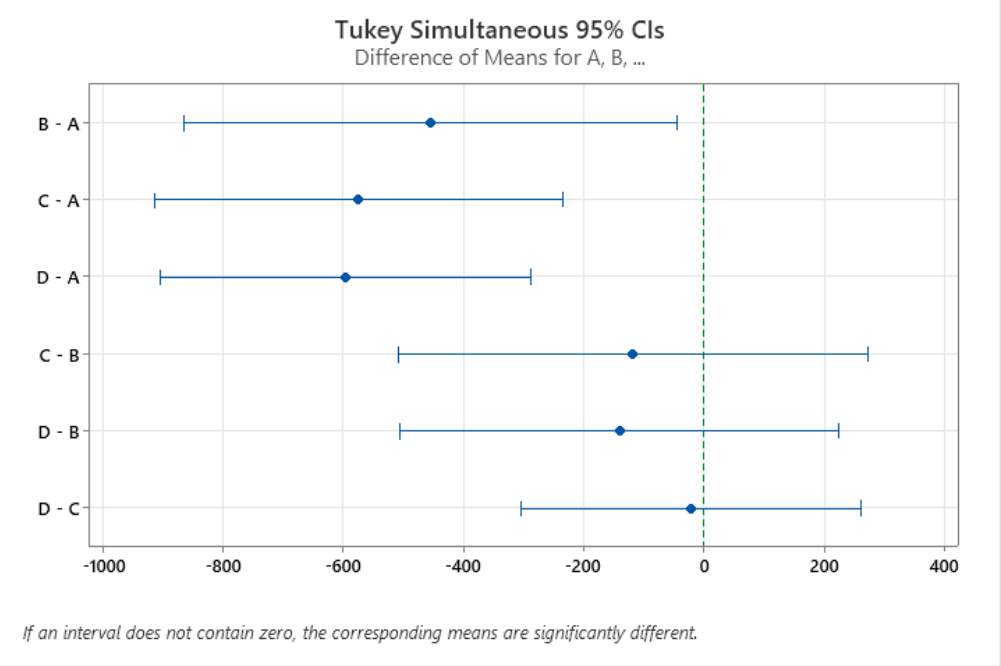
Pooled StDev = 459.622

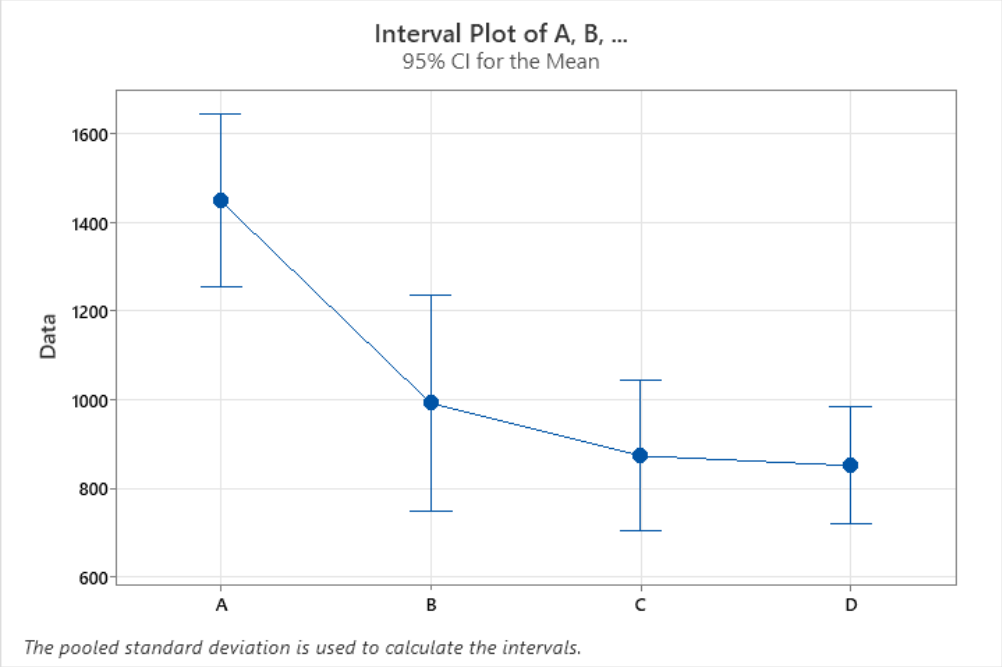
Tukey Pairwise Comparisons

Grouping Information Using the Tukey Method and 95% Confidence

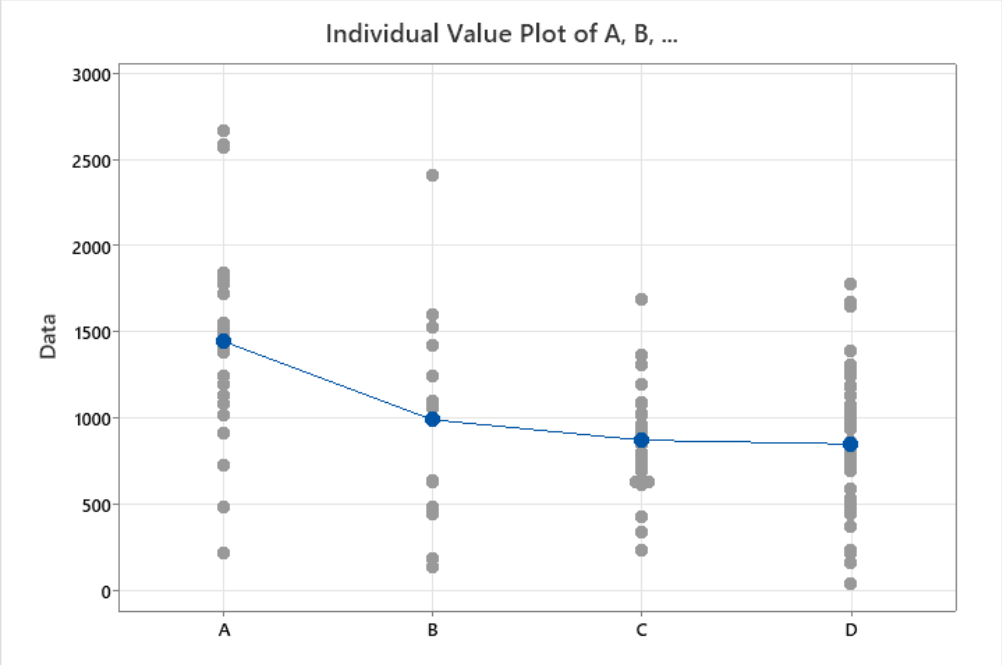
Factor	N	Mean	Grouping
A	22	1448	A
B	14	993	B
C	29	873.8	B
D	48	851.7	B

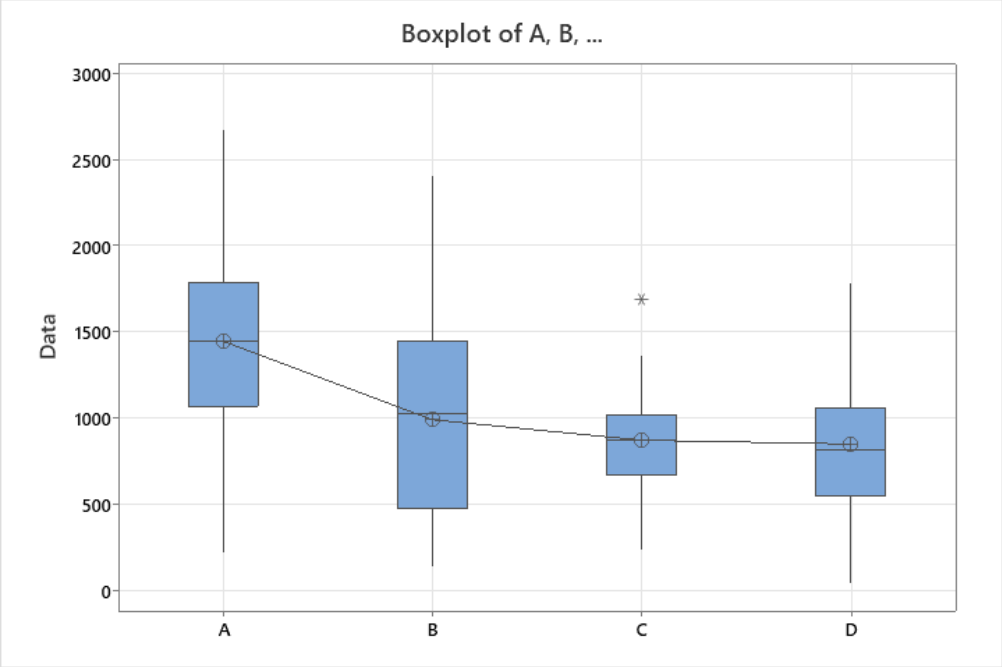
Means that do not share a letter are significantly different.





The pooled standard deviation is used to calculate the intervals.





8.2.4

EXR_C08_S02_04.CSV

One-way ANOVA: NTP, B, BNTP

Method

Null hypothesis	All means are equal
Alternative hypothesis	Not all means are equal
Significance level	α = 0.05

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Factor	3	NTP, B, BNTP

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	2	14490	7245	5.88	0.003
Error	161	198442	1233		
Total	163	212932			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
35.1078	6.80%	5.65%	3.54%

Means

Factor	N	Mean	StDev	95% CI
NTP	13	40.62	29.74	(21.39, 59.84)
B	92	73.93	35.24	(66.71, 81.16)
BNTP	59	76.80	35.91	(67.77, 85.82)

Pooled StDev = 35.1078

Tukey Pairwise Comparisons

Grouping Information Using the Tukey Method and 95% Confidence

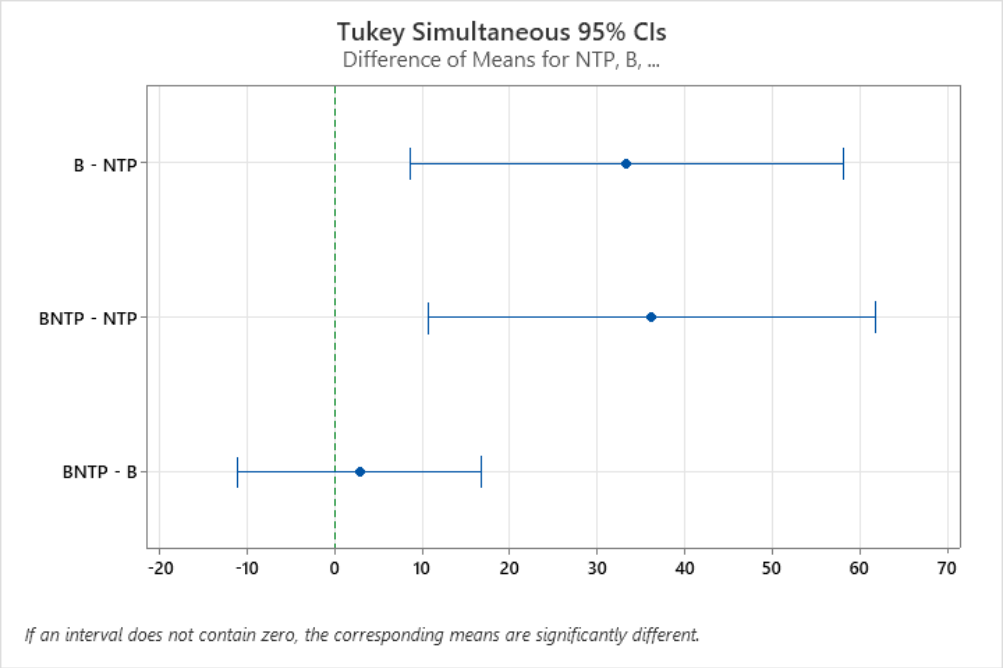
Factor	N	Mean	Grouping	
BNTP	59	76.80	A	
B	92	73.93	A	
NTP	13	40.62		B

Means that do not share a letter are significantly different.

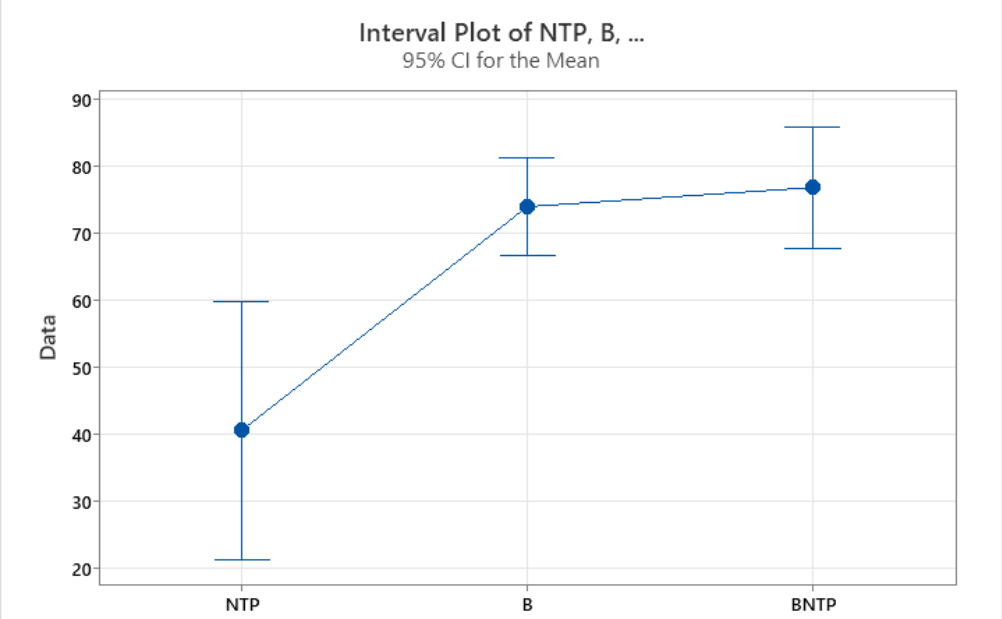
Tukey Simultaneous Tests for Differences of Means

Difference of Levels	Difference of Means	SE of Difference	95% CI	T-Value	Adjusted P-Value
B - NTP	33.3	10.4	(8.7, 58.0)	3.20	0.005
BNTP - NTP	36.2	10.8	(10.7, 61.7)	3.36	0.003
BNTP - B	2.86	5.86	(-11.01, 16.73)	0.49	0.877

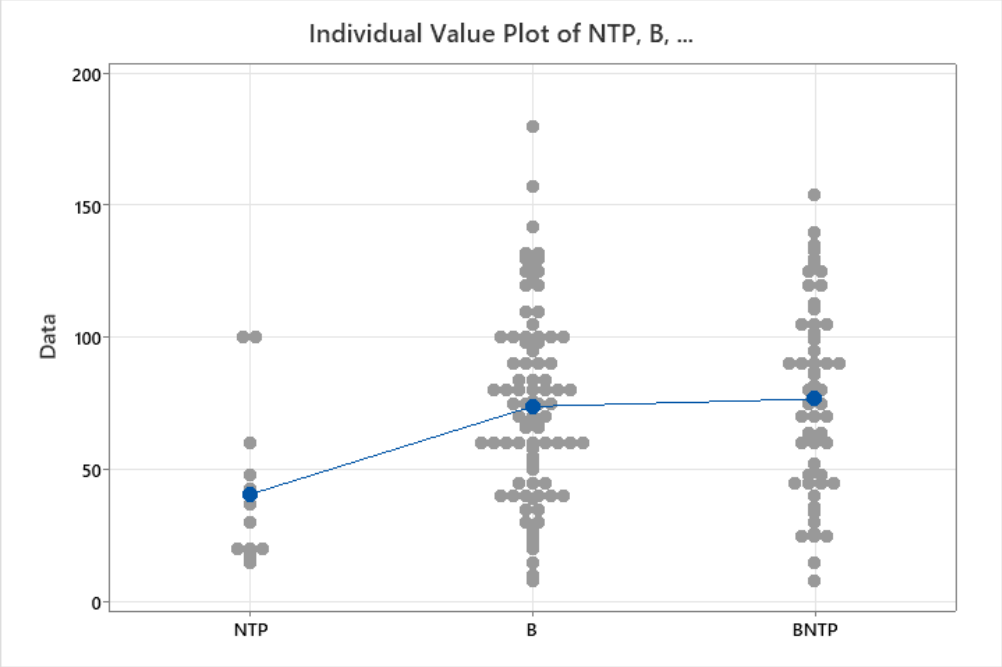
Individual confidence level = 98.10%

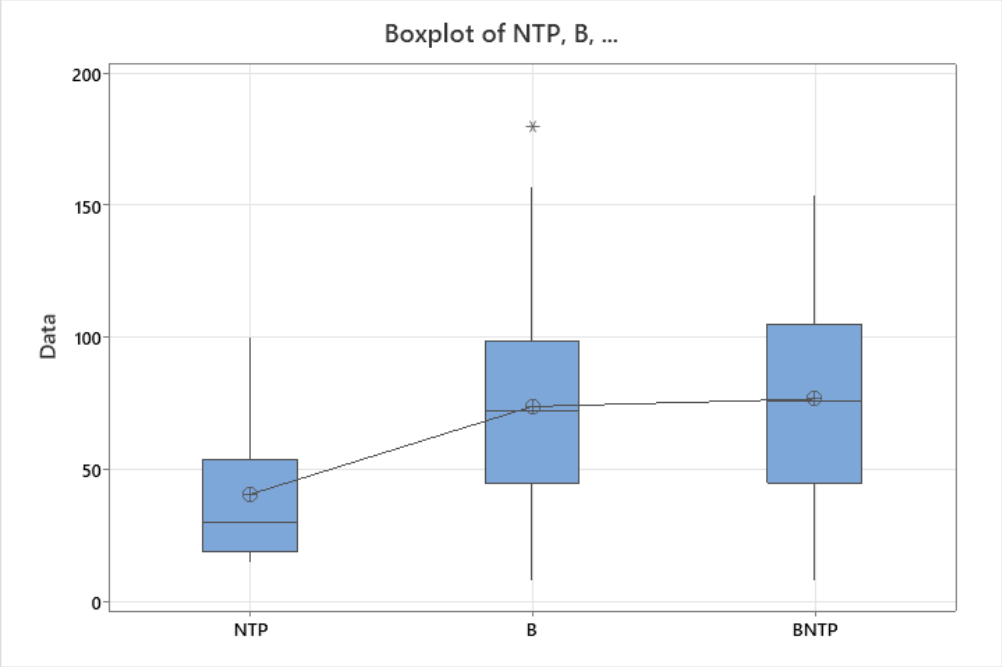


If an interval does not contain zero, the corresponding means are significantly different.



The pooled standard deviation is used to calculate the intervals.





8.2.5

EXR_C08_S02_05.CSV

One-way ANOVA: Y, MA, E

Method

Null hypothesis	All means are equal
Alternative hypothesis	Not all means are equal
Significance level	α = 0.05

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Factor	3	Y, MA, E

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	2	11799	5899.6	9.26	0.001
Error	26	16572	637.4		
Total	28	28371			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
25.2465	41.59%	37.10%	27.57%

Means

Factor	N	Mean	StDev	95% CI
Y	10	118.2	35.3	(101.8, 134.6)
MA	9	100.04	19.12	(82.75, 117.34)
E	10	70.07	16.44	(53.66, 86.48)

Pooled StDev = 25.2465

Tukey Pairwise Comparisons

Grouping Information Using the Tukey Method and 95% Confidence

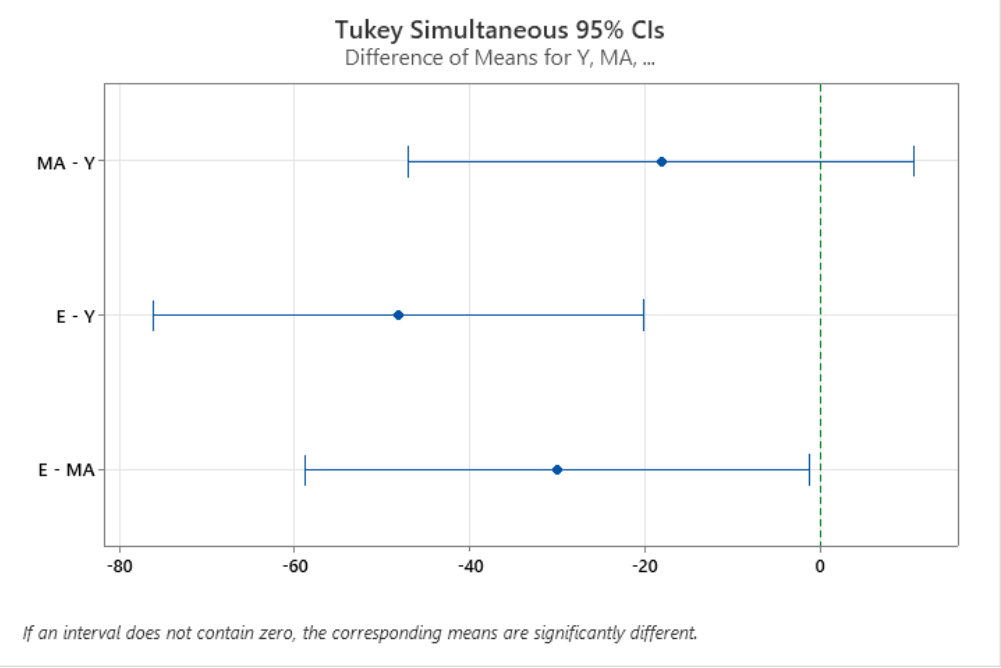
Factor	N	Mean	Grouping
Y	10	118.2	A
MA	9	100.04	A
E	10	70.07	B

Means that do not share a letter are significantly different.

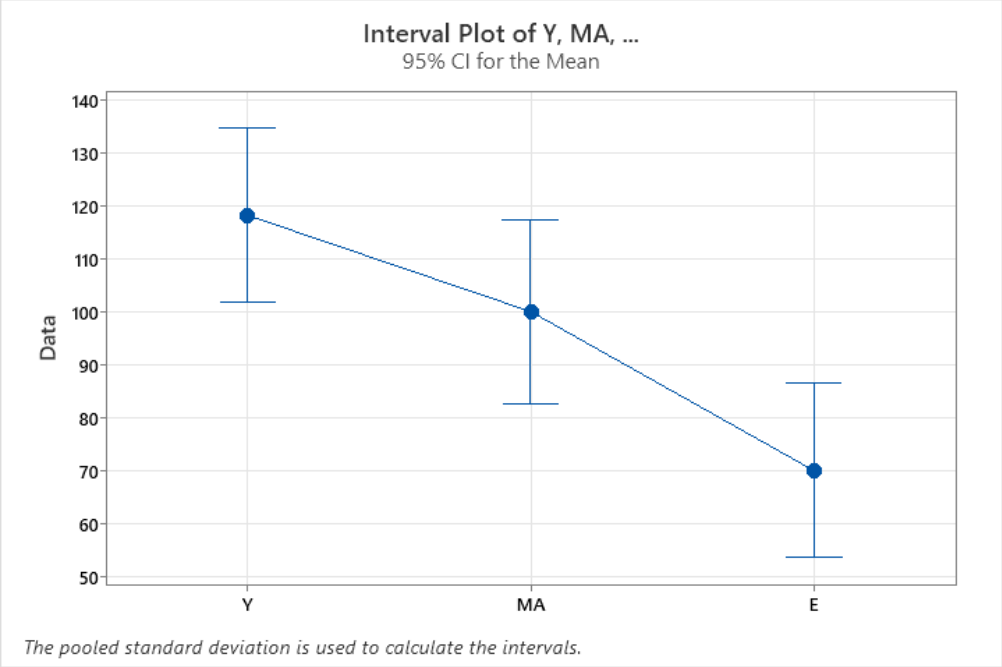
Tukey Simultaneous Tests for Differences of Means

Difference of Levels	Difference of Means	SE of Difference	95% CI	T-Value	Adjusted P-Value
MA - Y	-18.2	11.6	(-46.9, 10.6)	-1.57	0.278
E - Y	-48.1	11.3	(-76.2, -20.1)	-4.26	0.001
E - MA	-30.0	11.6	(-58.8, -1.2)	-2.58	0.040

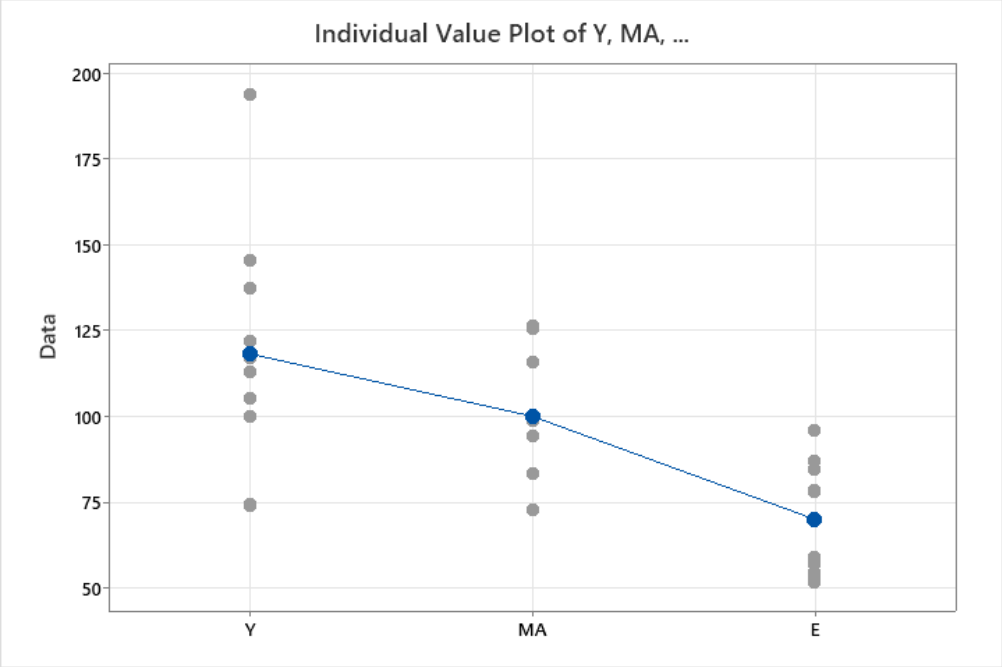
Individual confidence level = 98.01%

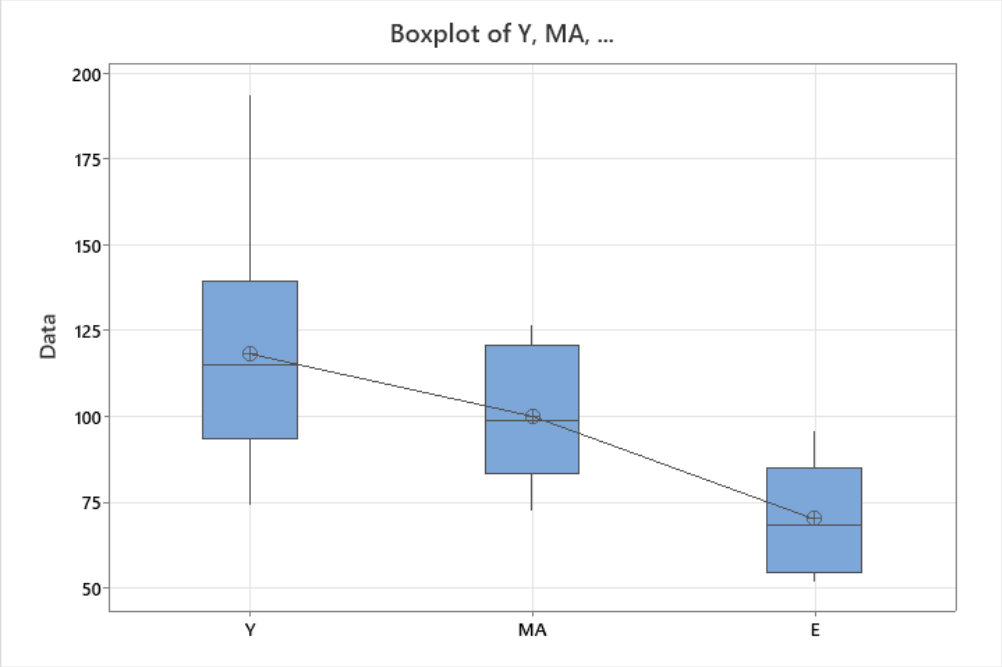


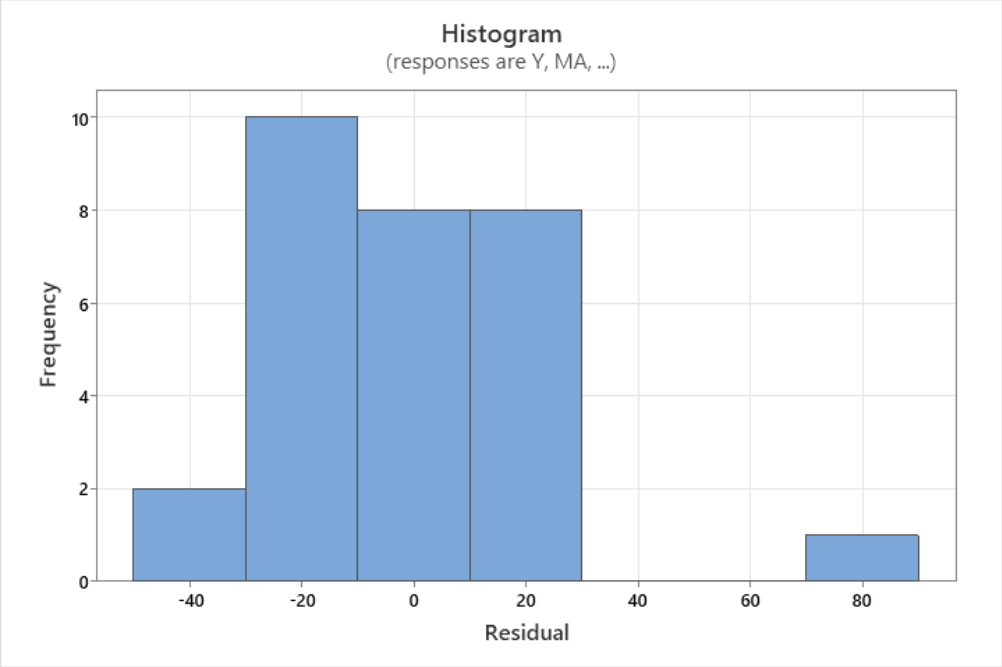
If an interval does not contain zero, the corresponding means are significantly different.



The pooled standard deviation is used to calculate the intervals.







8.2.6

EXR_C08_S02_06.CSV

One-way ANOVA: 1, 2, 3

Method

Null hypothesis	All means are equal
Alternative hypothesis	Not all means are equal
Significance level	α = 0.05

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Factor	3	1, 2, 3

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	2	4.959	2.4794	10.30	0.000
Error	87	20.948	0.2408		
Total	89	25.907			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0.490695	19.14%	17.28%	13.47%

Means

Factor	N	Mean	StDev	95% CI
1	30	1.717	0.643	(1.539, 1.895)
2	30	2.1613	0.3615	(1.9833, 2.3394)
3	30	2.2547	0.4214	(2.0766, 2.4327)

Pooled StDev = 0.490695

Tukey Pairwise Comparisons

Grouping Information Using the Tukey Method and 95% Confidence

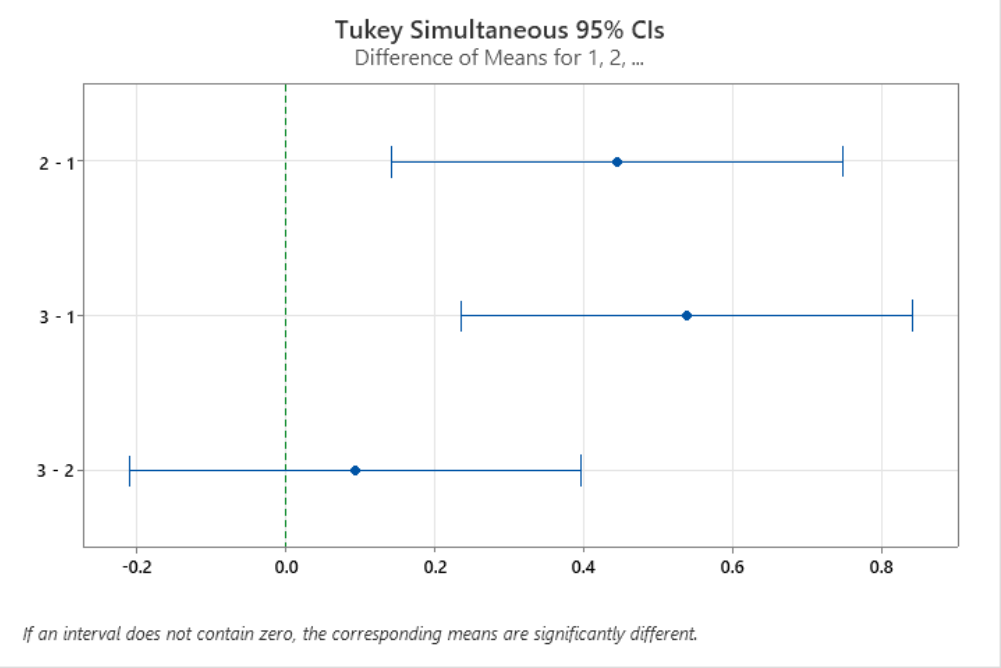
Factor	N	Mean	Grouping
3	30	2.2547	A
2	30	2.1613	A
1	30	1.717	B

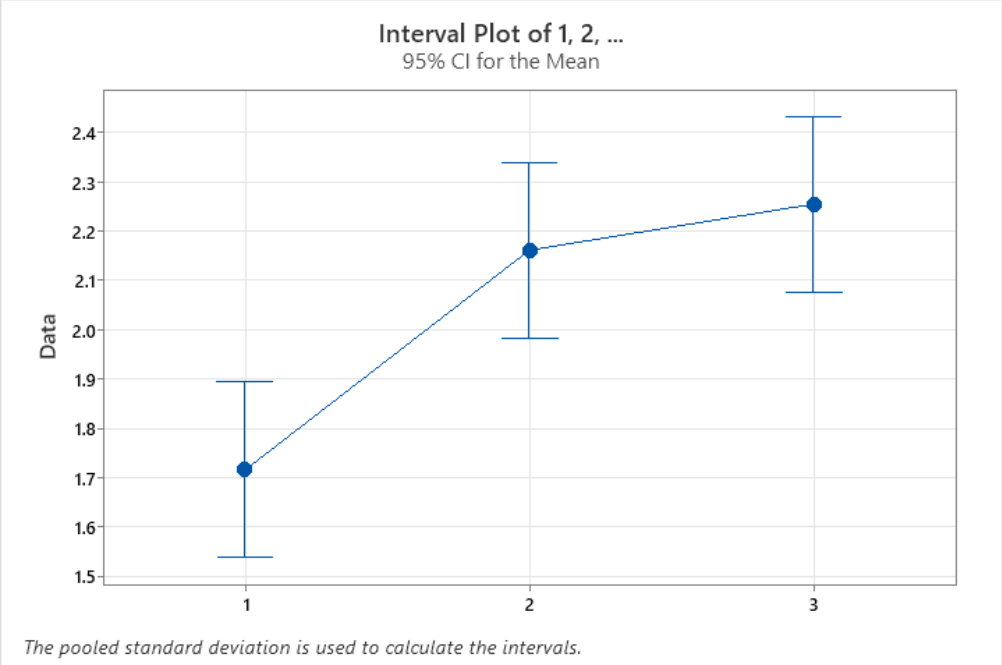
Means that do not share a letter are significantly different.

Tukey Simultaneous Tests for Differences of Means

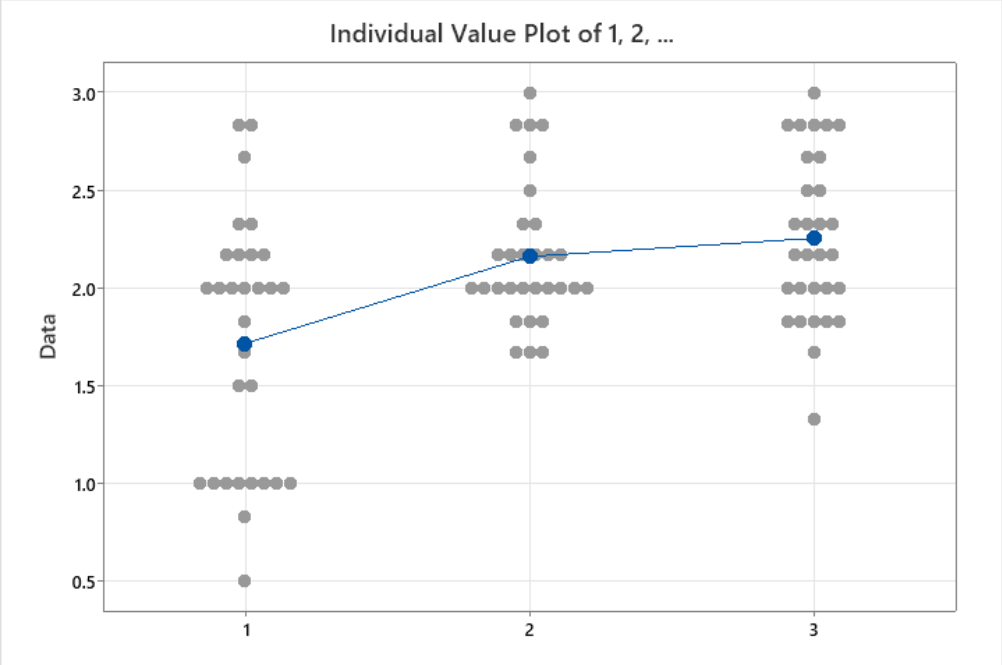
Difference of Levels	Difference of Means	SE of Difference	95% CI	T-Value	Adjusted P-Value
2 - 1	0.445	0.127	(0.143, 0.747)	3.51	0.002
3 - 1	0.538	0.127	(0.236, 0.840)	4.25	0.000
3 - 2	0.093	0.127	(-0.209, 0.395)	0.74	0.742

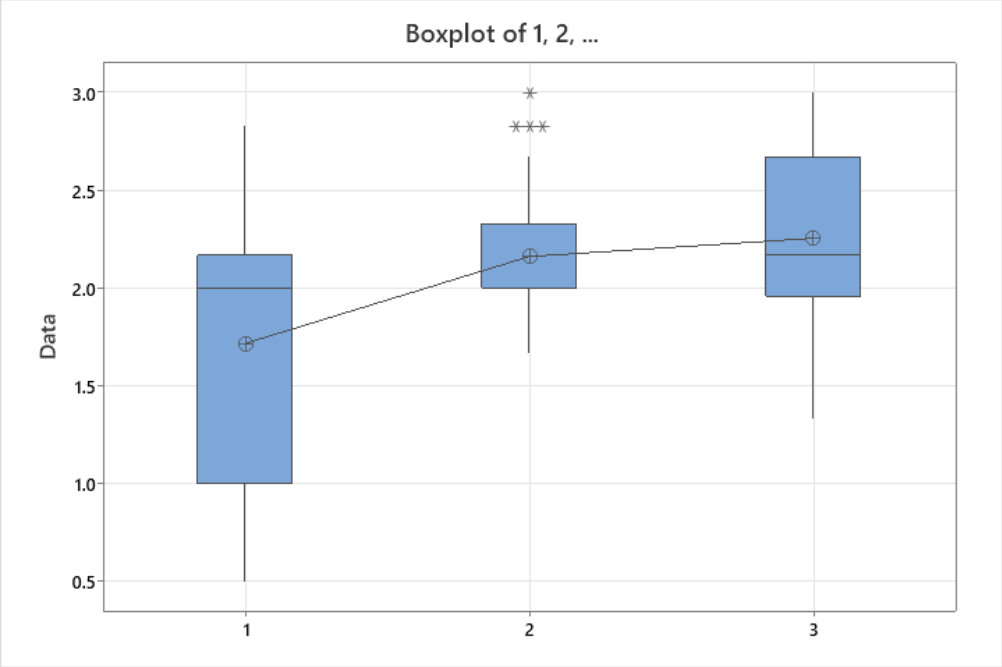
Individual confidence level = 98.06%

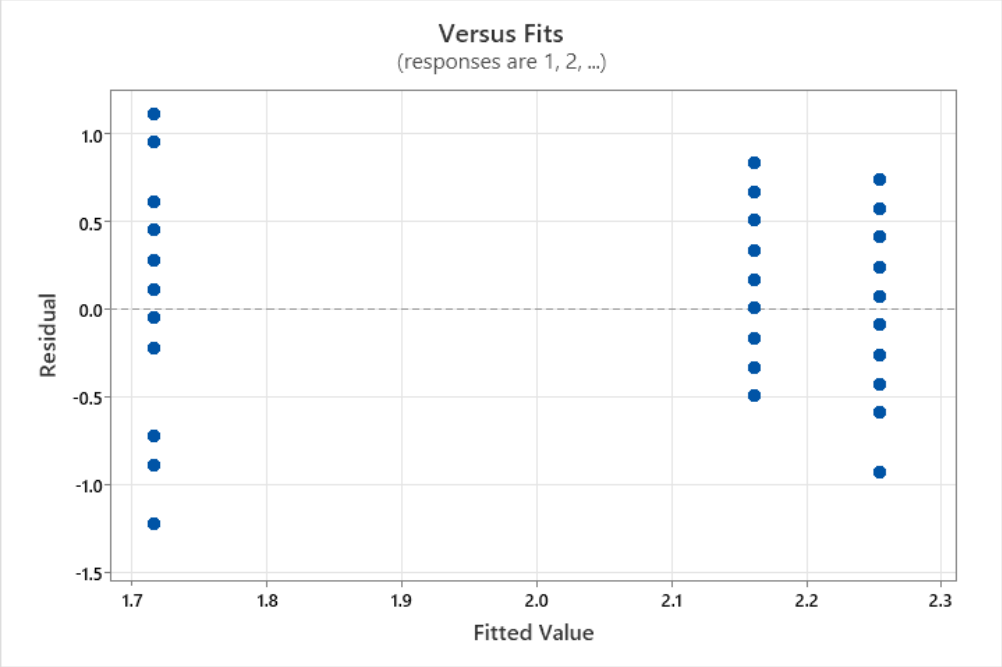


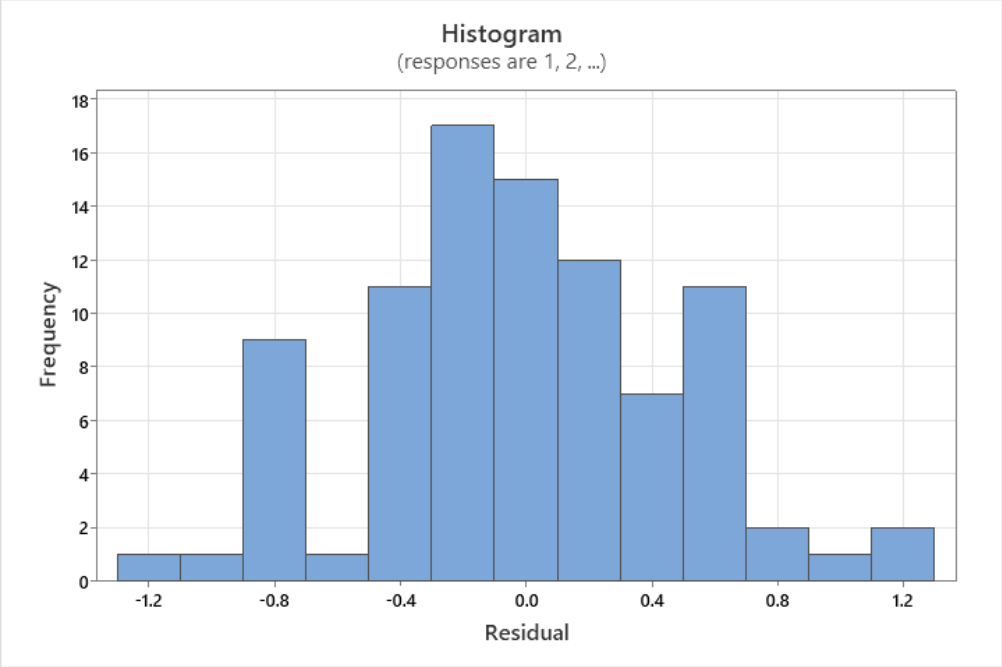


The pooled standard deviation is used to calculate the intervals.




Boxplot of 1, 2, ...
Data
3.0
2.5
2.0
1.5
1.0
0.5
1
2
3


Versus Fits
(responses are 1, 2, ...)
Residual
1.0
0.5
0.0
-0.5
-1.0
-1.5
1.7
1.8
1.9
2.0
2.1
2.2
2.3
Fitted Value



8.2.7

EXR_C08_S02_07.CSV

One-way ANOVA: 0, 1, 2, 3

Method

Null hypothesis	All means are equal
Alternative hypothesis	Not all means are equal
Significance level	α = 0.05

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Factor	4	0, 1, 2, 3

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	3	2.638	0.8792	4.94	0.003
Error	174	30.942	0.1778		
Total	177	33.580			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0.421699	7.85%	6.27%	3.62%

Means

Factor	N	Mean	StDev	95% CI
0	67	2.1830	0.3971	(2.0813, 2.2847)
1	30	2.0813	0.4384	(1.9294, 2.2333)
2	54	2.0048	0.4635	(1.8916, 2.1181)
3	27	1.8285	0.3707	(1.6683, 1.9887)

Pooled StDev = 0.421699

Tukey Pairwise Comparisons

Grouping Information Using the Tukey Method and 95% Confidence

Factor	N	Mean	Grouping

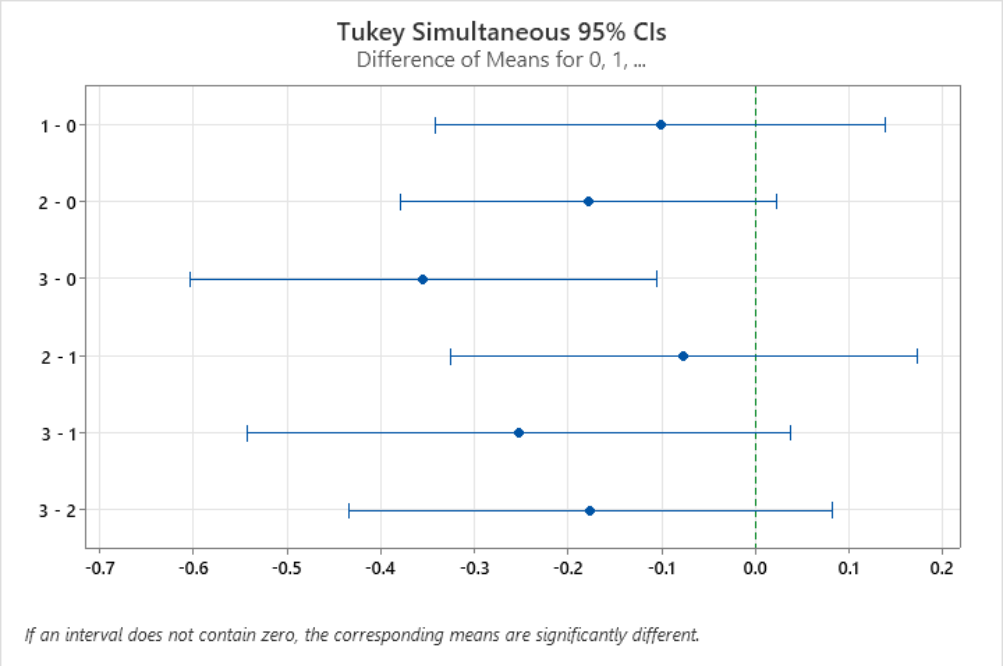
0	67	2.1830	A	
1	30	2.0813	A	B
2	54	2.0048	A	B
3	27	1.8285		B

Means that do not share a letter are significantly different.

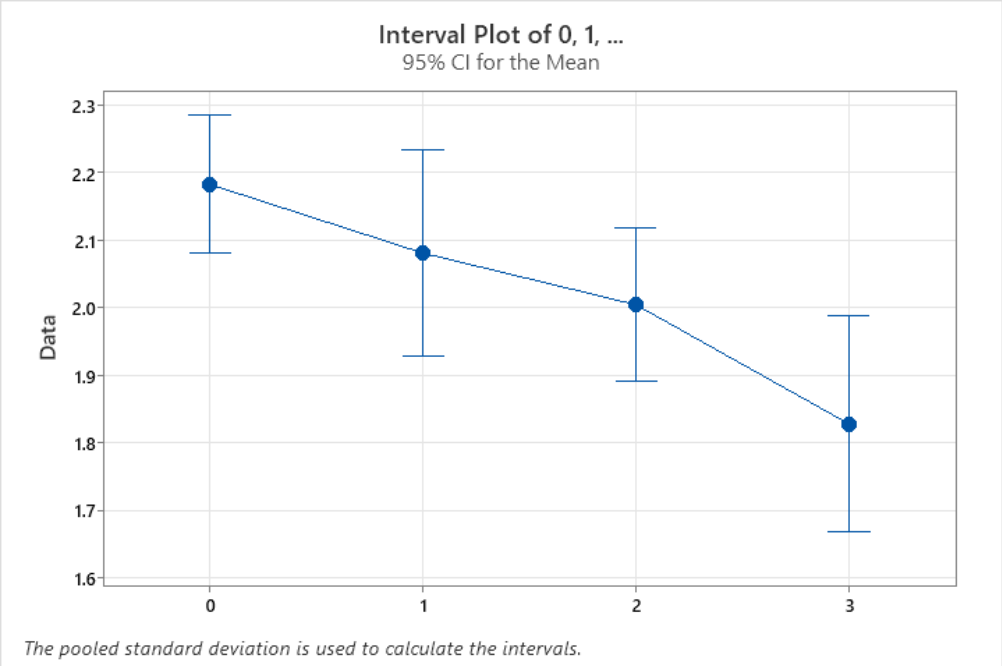
Tukey Simultaneous Tests for Differences of Means

Difference of Levels	Difference of Means	SE of Difference	95% CI	T-Value	Adjusted P-Value
1 - 0	-0.1017	0.0926	(-0.3421, 0.1388)	-1.10	0.692
2 - 0	-0.1782	0.0771	(-0.3783, 0.0220)	-2.31	0.100
3 - 0	-0.3545	0.0961	(-0.6039, -0.1050)	-3.69	0.002
2 - 1	-0.0765	0.0960	(-0.3257, 0.1727)	-0.80	0.856
3 - 1	-0.253	0.112	(-0.543, 0.037)	-2.26	0.112
3 - 2	-0.1763	0.0994	(-0.4342, 0.0816)	-1.77	0.290

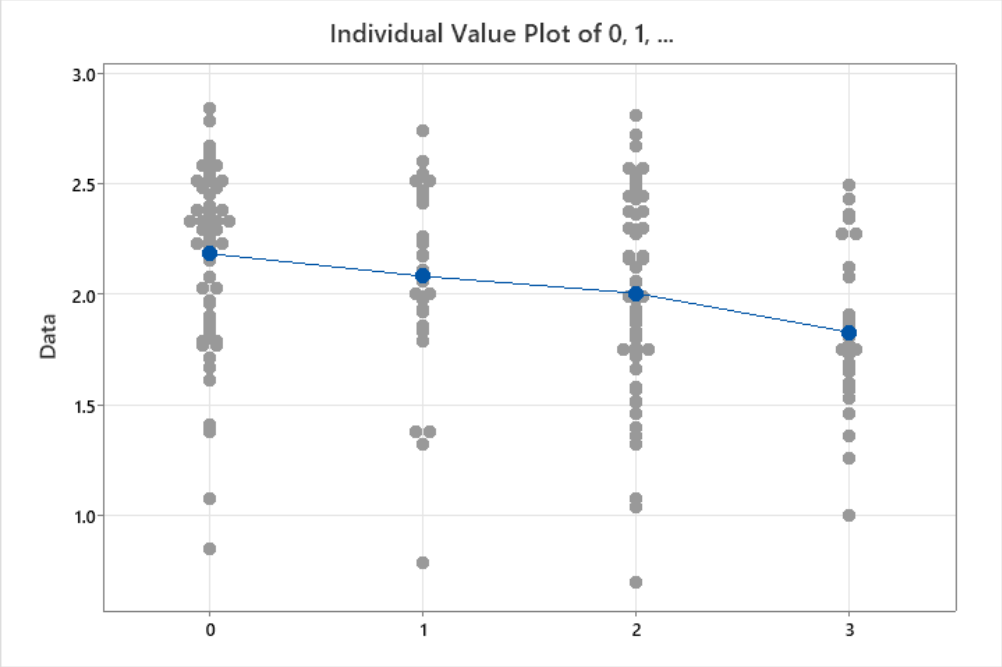
Individual confidence level = 98.97%

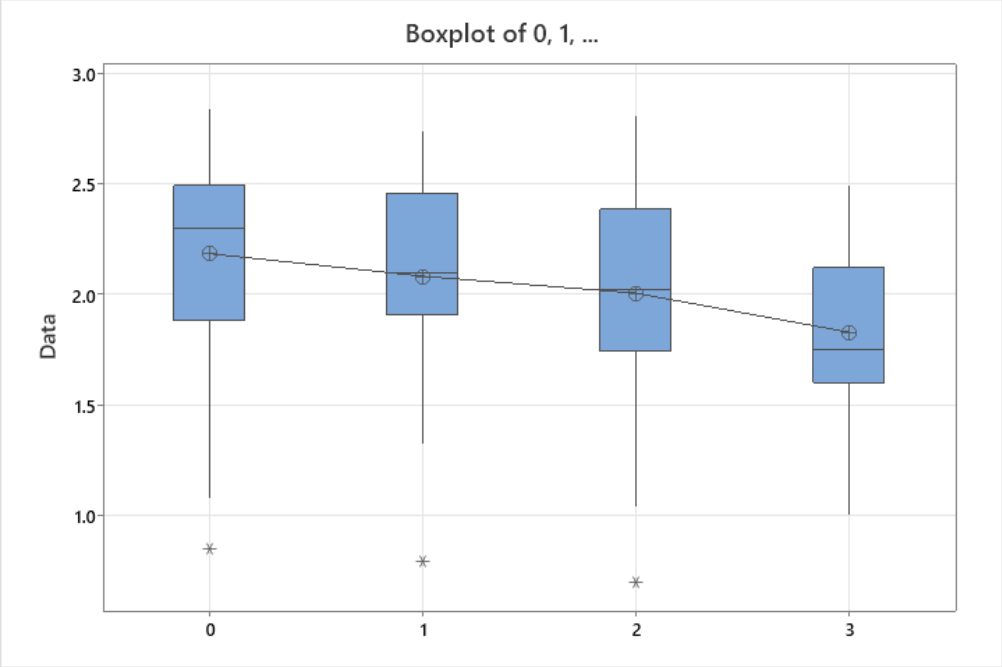


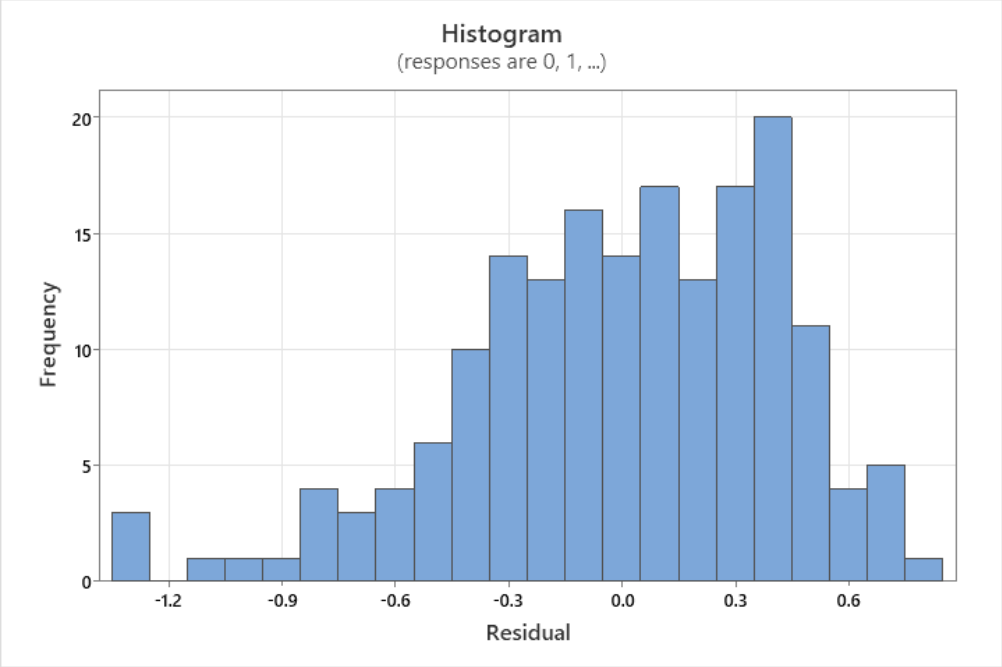
If an interval does not contain zero, the corresponding means are significantly different.



The pooled standard deviation is used to calculate the intervals.


Individual Value Plot of 0, 1, ...
Data
3.0
2.5
2.0
1.5
1.0
0
1
2
3


Boxplot of 0, 1, ...
Data
3.0
2.5
2.0
1.5
1.0
0
1
2
3


Histogram
(responses are 0, 1, ...)
Frequency
20
15
10
5
0
-1.2
-0.9
-0.6
-0.3
0.0
0.3
0.6
Residual