Level of Experience in Programming

Case Processing Summary

	Level of Experience in Programming	Cases			
		Valid		Missing	
		N	Percent	N	Percent
Grdaes With Type Hints	Beginner	6	100.0%	0	0.0%
	Intermediate	44	100.0%	0	0.0%
	Advanced	52	100.0%	0	0.0%
	Proficent	10	100.0%	0	0.0%

Case Processing Summary

	Level of Experience in Programming	Cases	
		Total	
		N	Percent
Grdaes With Type Hints	Beginner	6	100.0%
	Intermediate	44	100.0%
	Advanced	52	100.0%
	Proficent	10	100.0%

Descriptives

	Level of Experience in Programming			Statistic	Std. Error
Grdaes With Type Hints	Beginner	Mean		1.67	.615
		95% Confidence Interval for Mean	Lower Bound	.09	
			Upper Bound	3.25	
		5% Trimmed Mean		1.63	
		Median		1.00	
		Variance		2.267	
		Std. Deviation		1.506	
		Minimum		0	
		Maximum		4	
		Range		4	
		Interquartile Range		3	
		Skewness		.840	.845
		Kurtosis		-.649	1.741
	Intermediate	Mean		4.68	.618
		95% Confidence Interval for Mean	Lower Bound	3.43	
			Upper Bound	5.93	
		5% Trimmed Mean		4.45	
		Median		3.50	
		Variance		16.827	
		Std. Deviation		4.102	

Descriptives

Level of Experience in Programming			Statistic	Std. Error
	Minimum		0	
	Maximum		14	
	Range		14	
	Interquartile Range		6	
	Skewness		.826	.357
	Kurtosis		-.468	.702
Advanced	Mean		7.12	.735
	95% Confidence Interval for Mean	Lower Bound	5.64	
		Upper Bound	8.59	
	5% Trimmed Mean		6.92	
	Median		5.50	
	Variance		28.104	
	Std. Deviation		5.301	
	Minimum		0	
	Maximum		18	
	Range		18	
	Interquartile Range		8	
	Skewness		.594	.330
	Kurtosis		-.903	.650
Proficent	Mean		9.20	1.718
	95% Confidence Interval for Mean	Lower Bound	5.31	
		Upper Bound	13.09	
	5% Trimmed Mean		9.28	
	Median		9.50	
	Variance		29.511	
	Std. Deviation		5.432	
	Minimum		1	
	Maximum		16	
	Range		15	
	Interquartile Range		11	
	Skewness		-.110	.687
	Kurtosis		-1.674	1.334

Extreme Values[a]

	Level of Experience in Programming			Case Number	Value
Grdaes With Type Hints	Beginner	Highest	1	100	4
			2	70	3
			3	13	1[b]
		Lowest	1	75	0
			2	60	1
			3	40	1[c]
	Intermediate	Highest	1	104	14
			2	35	13
			3	102	13
			4	81	12
			5	8	11[d]
		Lowest	1	56	0
			2	46	0
			3	45	0
			4	112	1
			5	84	1[c]
	Advanced	Highest	1	26	18
			2	30	18
			3	3	16
			4	31	16
			5	33	16[e]
		Lowest	1	29	0
			2	14	0
			3	107	1
			4	105	1
			5	42	1
	Proficent	Highest	1	4	16
			2	5	15
			3	16	15
			4	77	12
			5	96	12
		Lowest	1	1	1
			2	99	4
			3	90	4
			4	9	6
			5	20	7

a. The requested number of extreme values exceeds the number of data points. A smaller number of extremes is displayed.

b. Only a partial list of cases with the value 1 are shown in the table of upper extremes.

c. Only a partial list of cases with the value 1 are shown in the table of lower extremes.

d. Only a partial list of cases with the value 11 are shown in the table of upper extremes.

e. Only a partial list of cases with the value 16 are shown in the table of upper extremes.

Tests of Normality

	Level of Experience in Programming	Kolmogorov-Smirnov[a]			Shapiro-...
		Statistic	df	Sig.	Statistic
Grdaes With Type Hints	Beginner	.338	6	.031	.866
	Intermediate	.221	44	<.001	.876
	Advanced	.160	52	.002	.909
	Proficent	.197	10	.200*	.907

Tests of Normality

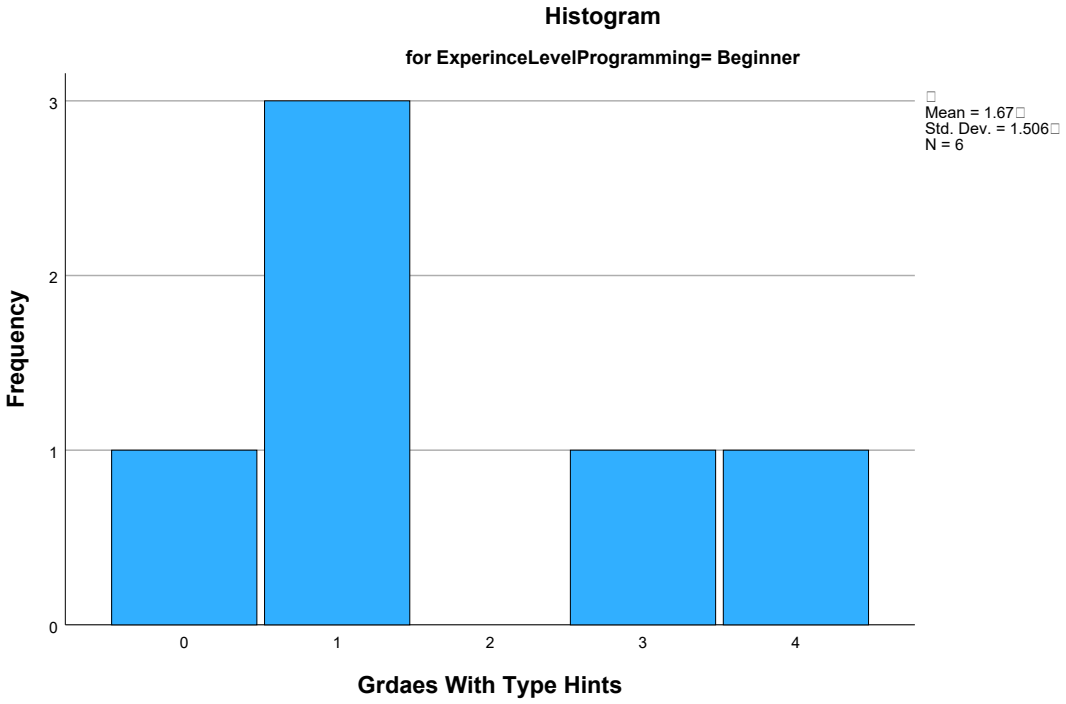
	Level of Experience in Programming	Shapiro-Wilk	
		df	Sig.
Grdaes With Type Hints	Beginner	6	.212
	Intermediate	44	<.001
	Advanced	52	<.001
	Proficent	10	.260

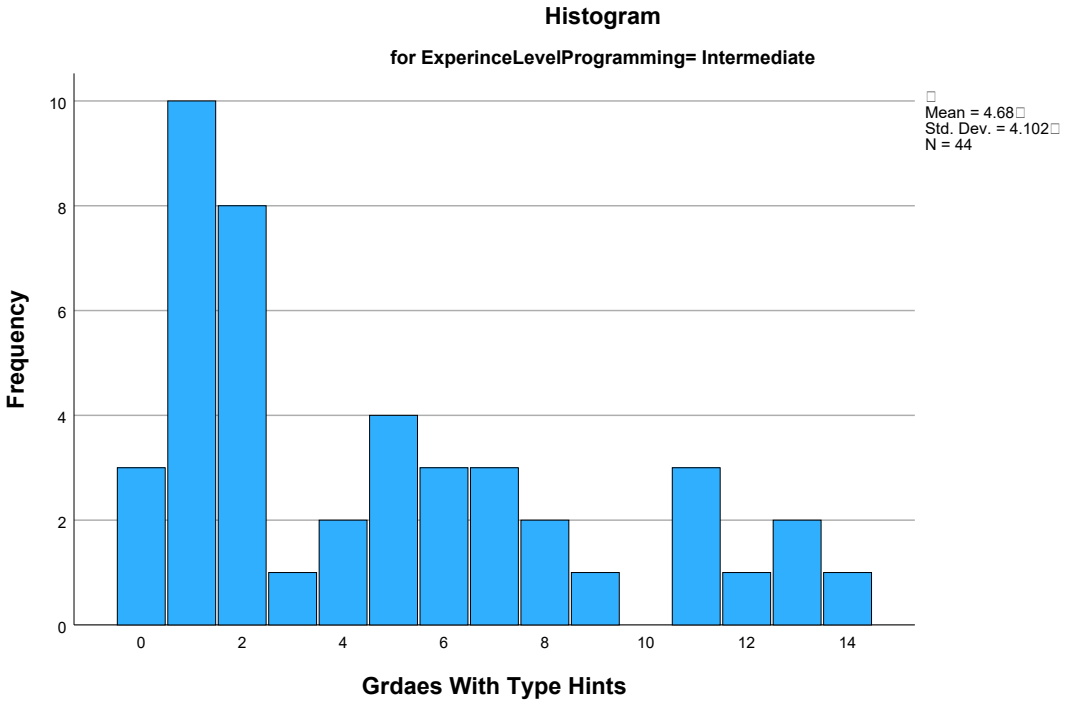
*. This is a lower bound of the true significance.

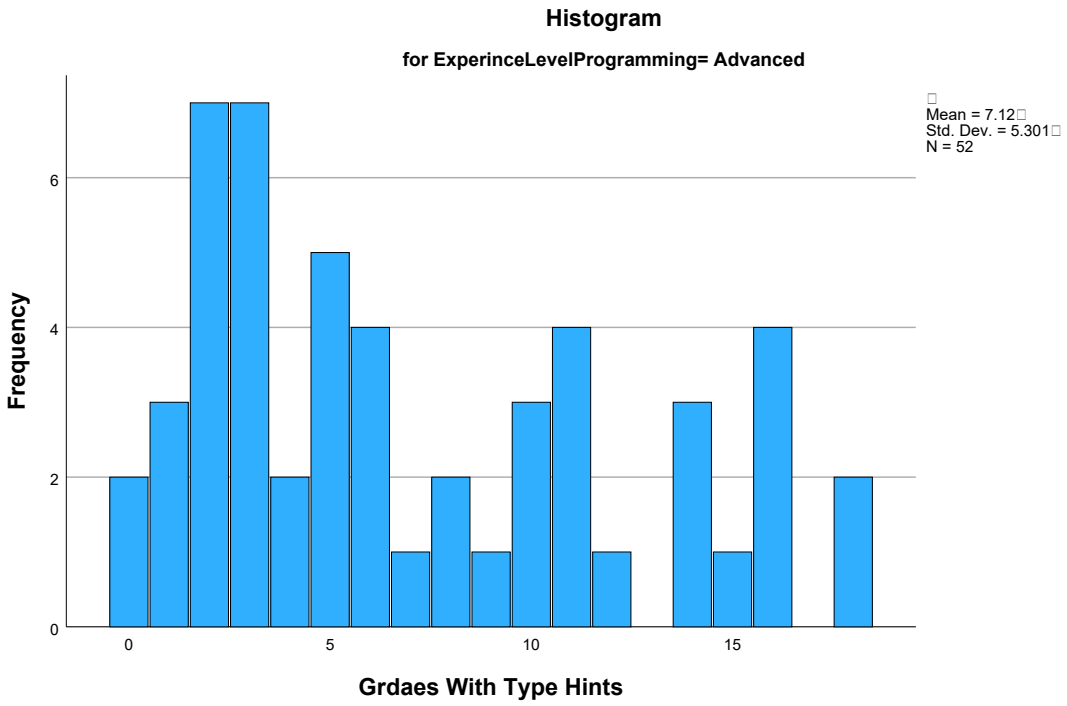
a. Lilliefors Significance Correction

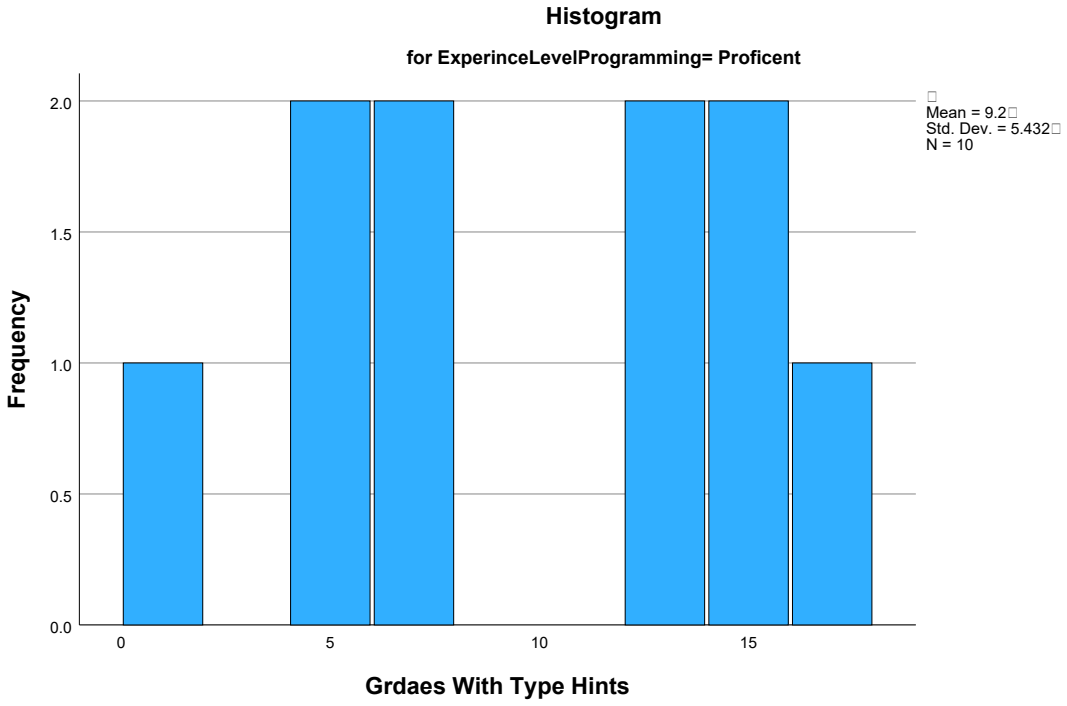
Grdaes With Type Hints

Histograms

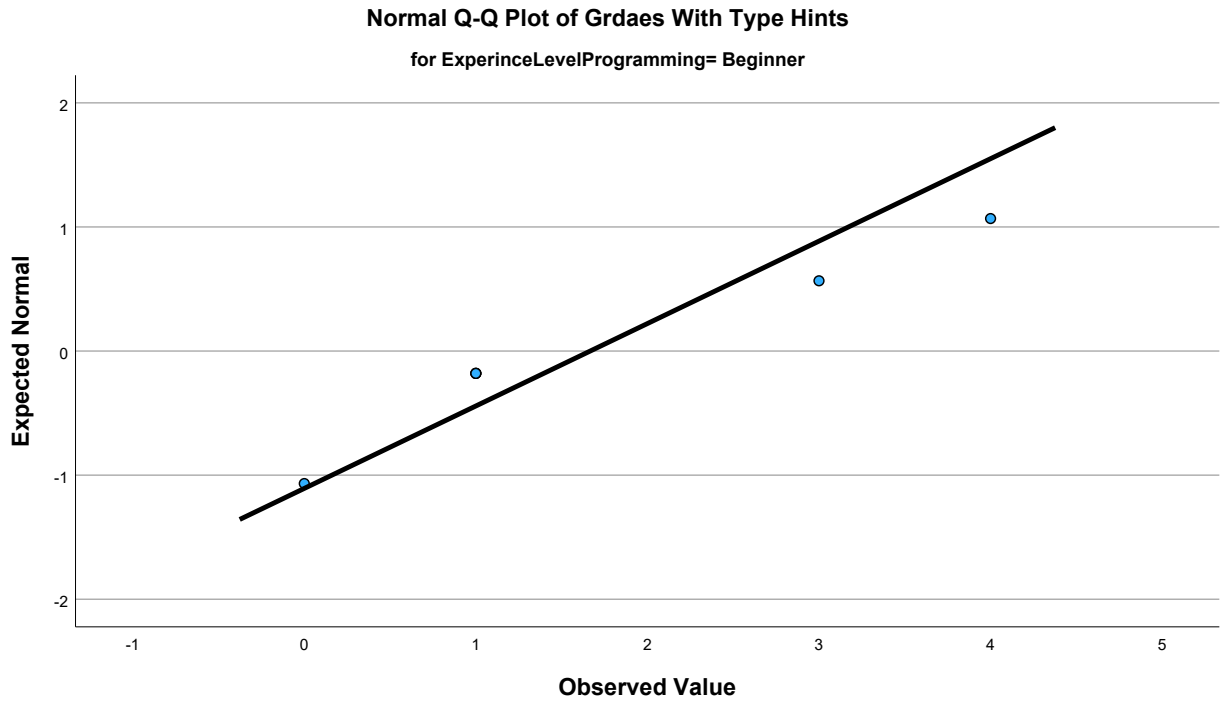

Histogram
for ExperinceLevelProgramming= Beginner
Mean = 1.67
Std. Dev. = 1.506
N = 6
Frequency
0
1
2
3
0
1
2
3
4
Grdaes With Type Hints

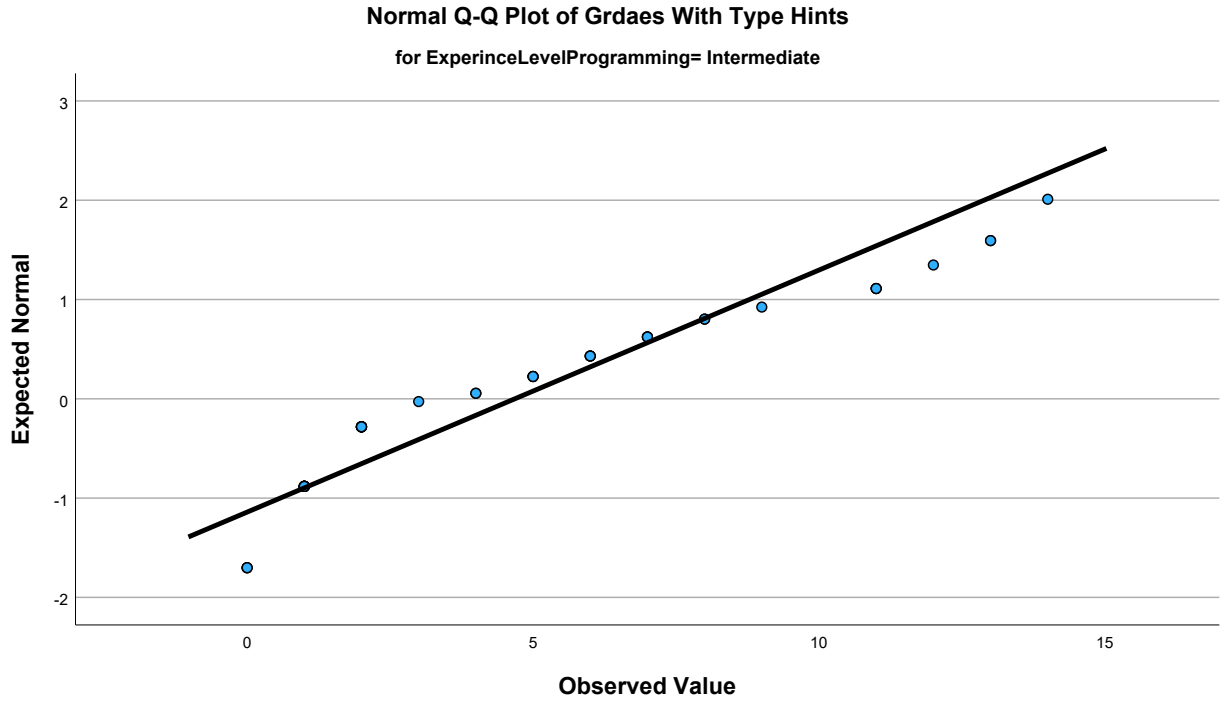

Histogram
for ExperinceLevelProgramming= Intermediate
Mean = 4.68
Std. Dev. = 4.102
N = 44
Frequency
0
2
4
6
8
10
0
2
4
6
8
10
12
14
Grdaes With Type Hints

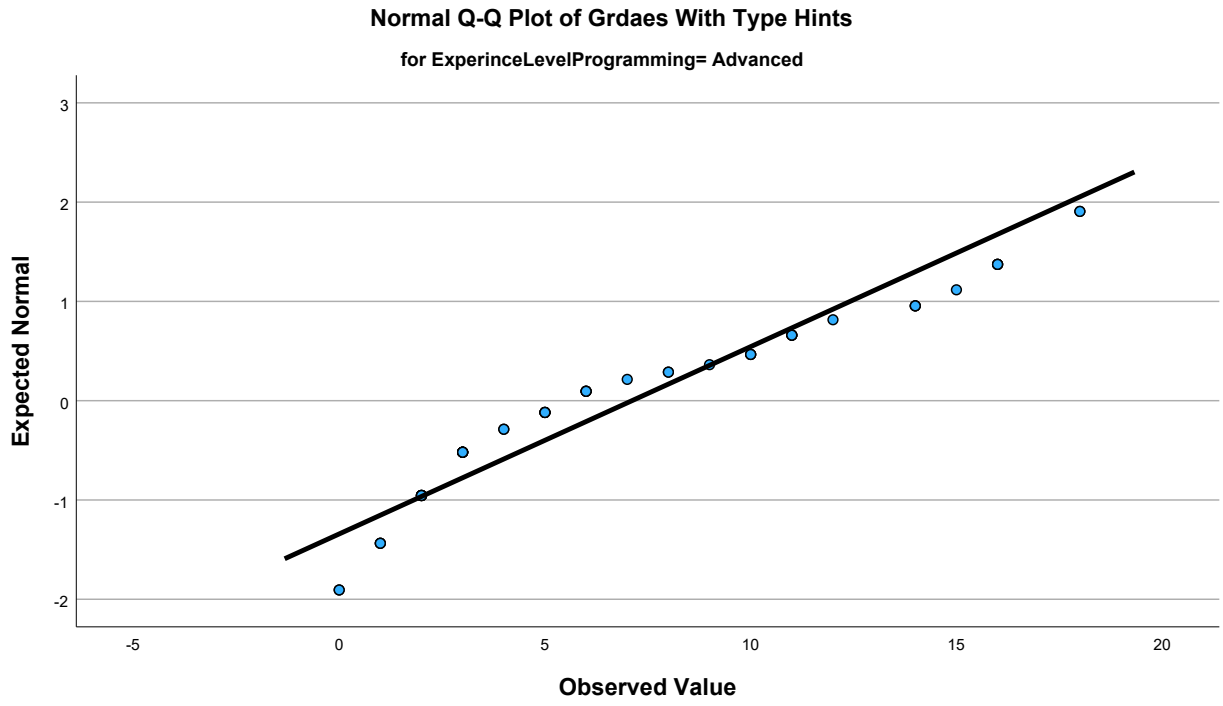


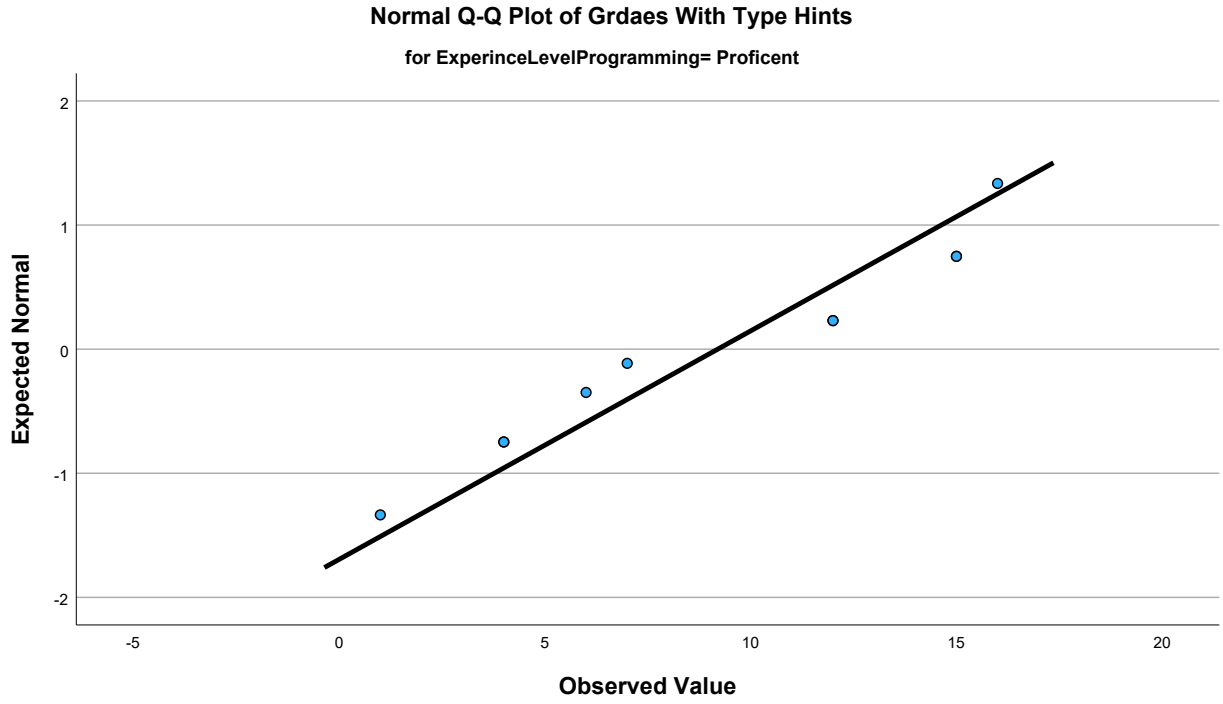


Normal Q-Q Plots

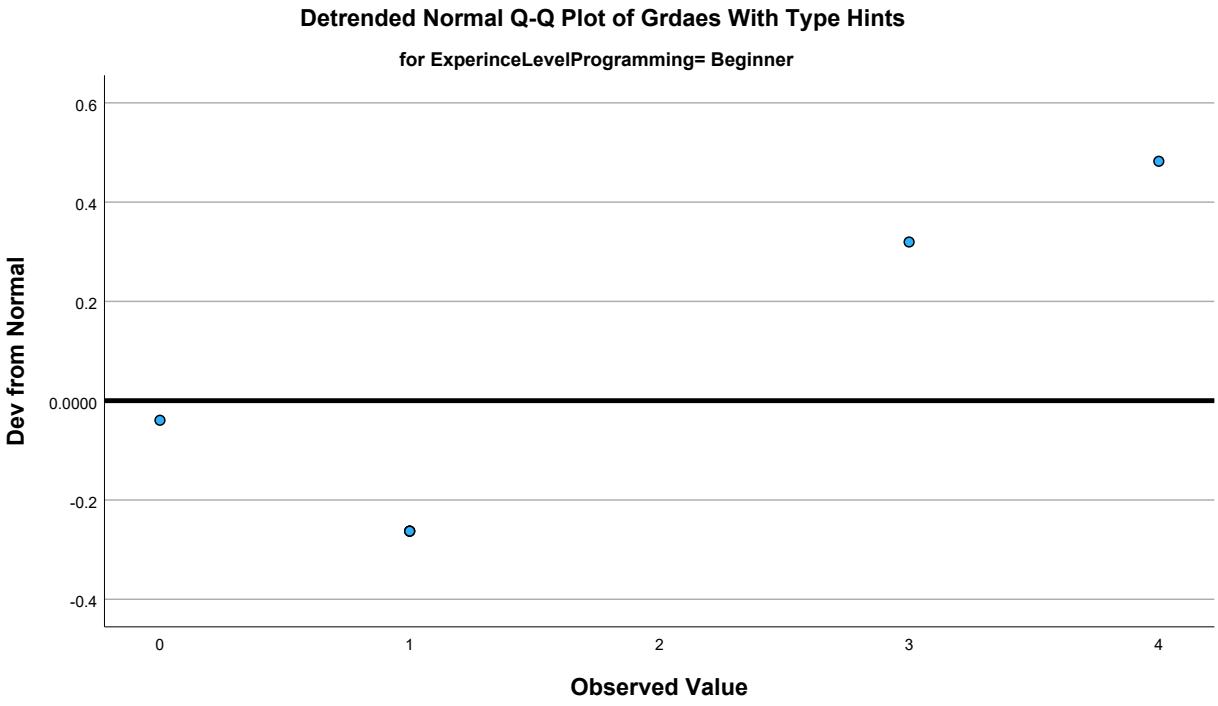

Normal Q-Q Plot of Grdaes With Type Hints
for ExperinceLevelProgramming= Beginner
Expected Normal
2
1
0
-1
-2
-1
0
1
2
3
4
5
Observed Value

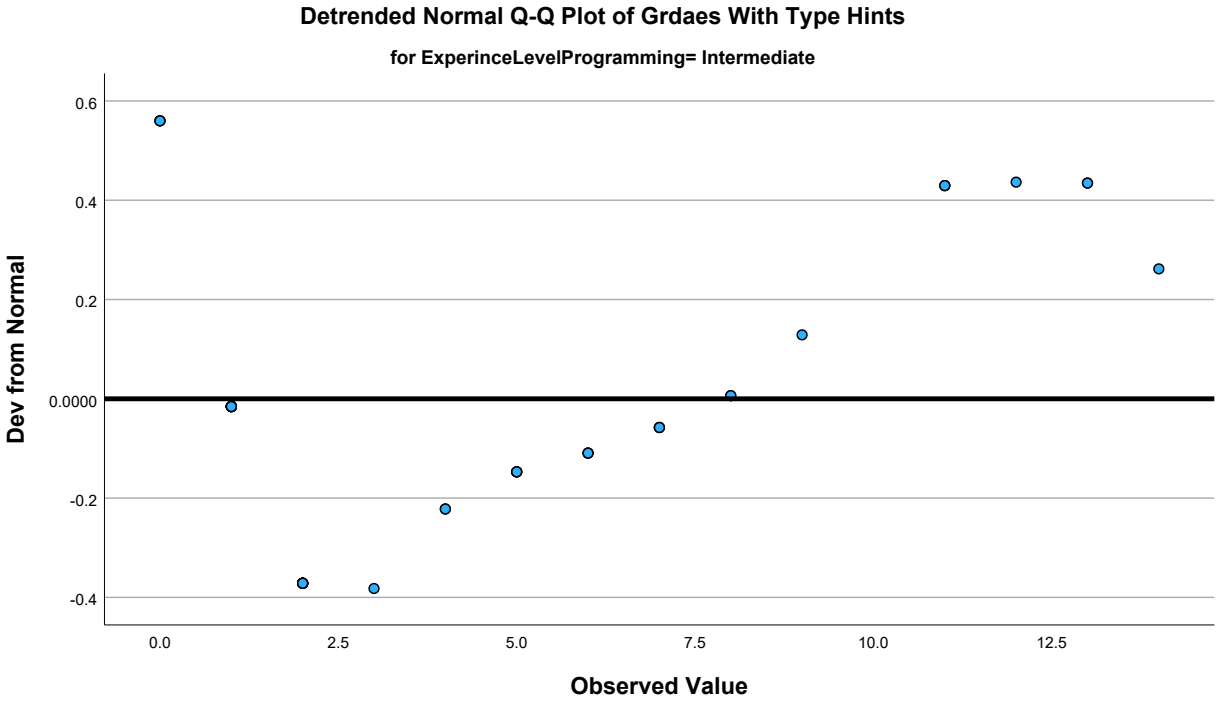

Normal Q-Q Plot of Grdaes With Type Hints
for ExperinceLevelProgramming= Intermediate
Expected Normal
3
2
1
0
-1
-2
0
5
10
15
Observed Value

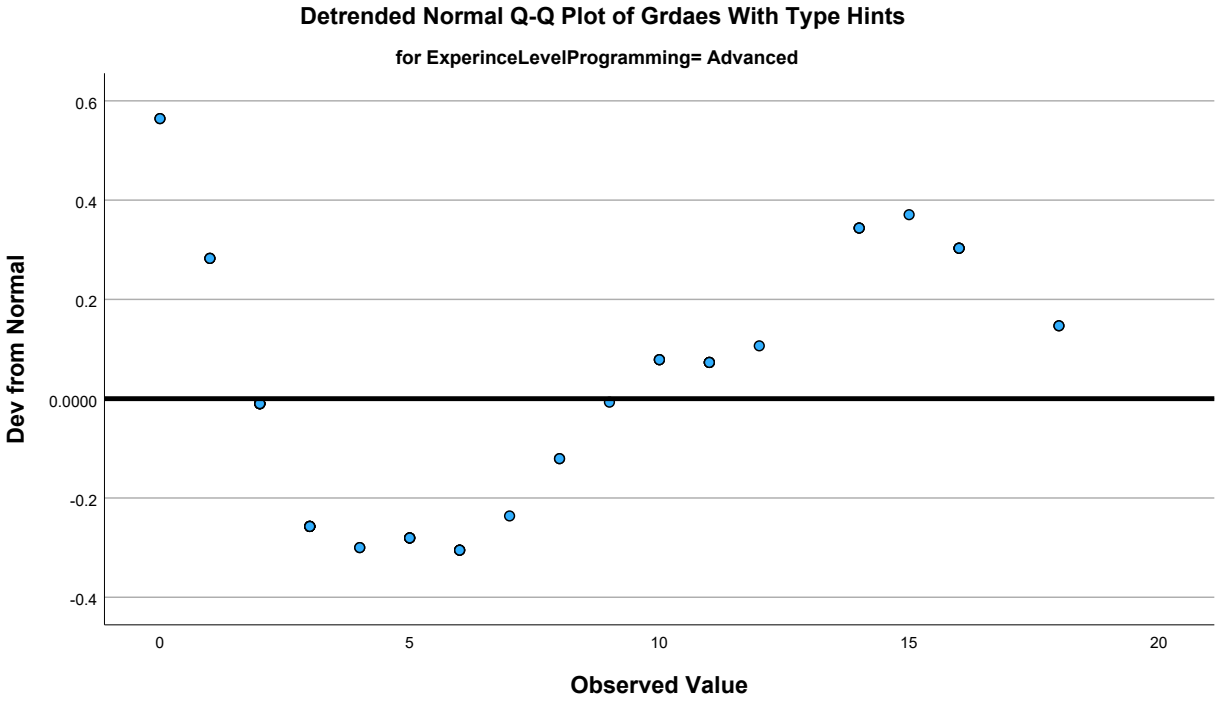


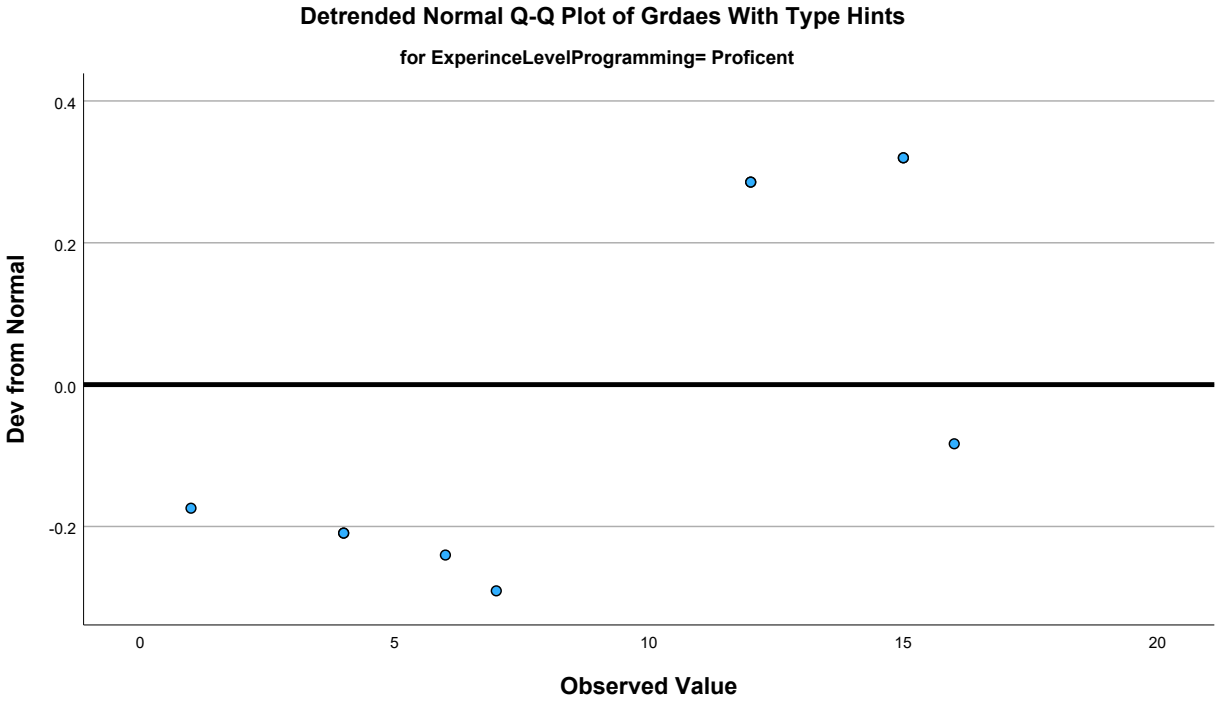


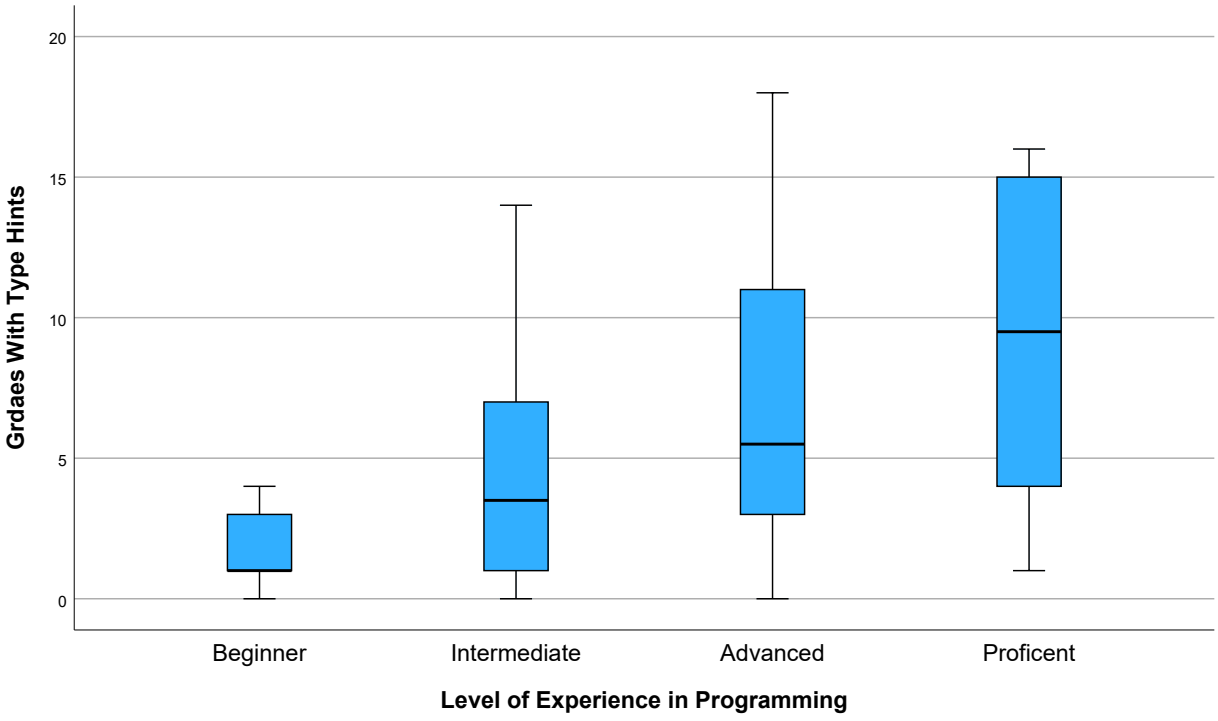
Detrended Normal Q-Q Plots


Detrended Normal Q-Q Plot of Grdaes With Type Hints
for ExperinceLevelProgramming= Beginner
Dev from Normal
0.6
0.4
0.2
0.0000
-0.2
-0.4
0
1
2
3
4
Observed Value


Detrended Normal Q-Q Plot of Grdaes With Type Hints
for ExperinceLevelProgramming= Intermediate
Dev from Normal
0.6
0.4
0.2
0.0000
-0.2
-0.4
0.0
2.5
5.0
7.5
10.0
12.5
Observed Value


Detrended Normal Q-Q Plot of Grdaes With Type Hints
for ExperinceLevelProgramming= Advanced
Dev from Normal
0.6
0.4
0.2
0.0000
-0.2
-0.4
0
5
10
15
20
Observed Value


Detrended Normal Q-Q Plot of Grdaes With Type Hints
for ExperinceLevelProgramming= Proficent
Dev from Normal
0.4
0.2
0.0
-0.2
0
5
10
15
20
Observed Value


Grdaes With Type Hints
20
15
10
5
0
Beginner
Intermediate
Advanced
Proficent
Level of Experience in Programming