Number of Years of Experince in Programming

Case Processing Summary

	Cases				
	Number of Years of	Va	alid	Miss	sing
	Experince in Programming	N	Percent	N	Percent
Grdaes With Type Hints	Beginner	70	100.0%	0	0.0%
	Intermediate	33	100.0%	0	0.0%
	Advanced	6	100.0%	0	0.0%
	Proficent	3	100.0%	0	0.0%

Case Processing Summary

		Cases		
	Number of Years of	Total		
	Experince in Programming	N	Percent	
Grdaes With Type Hints	Beginner	70	100.0%	
	Intermediate	33	100.0%	
	Advanced	6	100.0%	
	Proficent	3	100.0%	

		•		
	Number of Yea	ars of Experince in Programmin	9	Statistic
Grdaes With Type Hints	Beginner	er Mean		4.99
		95% Confidence Interval for	Lower Bound	3.87
		Mean	Upper Bound	6.10
		5% Trimmed Mean		4.66
		Median	3.50	
		Variance		21.898
		Std. Deviation		4.680
		Minimum		0
	Maximum	Maximum		16
		Range		16
	_Int	Interquartile Range		6
		Skewness		1.076
		Kurtosis		.061
	Intermediate	Mean		7.21
		95% Confidence Interval for Mean	Lower Bound	5.45
			Upper Bound	8.97
		5% Trimmed Mean		6.96
		Median		6.00
		Variance		24.672
		Std. Deviation		4.967

	Number of Yea	าร of Experince in Programming	9	Std. Error		
Grdaes With Type Hints	Beginner	Mean		.559		
		95% Confidence Interval for	Lower Bound			
		Mean	Upper Bound			
		5% Trimmed Mean				
		Median				
		Variance				
		Std. Deviation				
		Minimum				
	Maximur Range	Maximum				
		Range				
		Interquartile Range				
		Skewness		.287		
		Kurtosis		.566		
	Intermediate	Mean		.865		
		95% Confidence Interval for	Lower Bound			
		Mean	Upper Bound			
		5% Trimmed Mean				
		Median				
		Variance				
		Std. Deviation				

		•		
	Number of Ye	ears of Experince in Programming		Statistic
		Minimum		1
		Maximum		18
		Range		17
		Interquartile Range		8
		Skewness		.698
		Kurtosis		476
	Advanced	Mean		10.67
		95% Confidence Interval for	Lower Bound	6.33
		Mean	Upper Bound	15.00
		5% Trimmed Mean		10.69
		Median		11.00
		Variance		17.067
		Std. Deviation		4.131
		Minimum Maximum Range		5
				16
				11
		Interquartile Range		8
		Skewness		181
		Kurtosis		-1.096
	Proficent	Mean		9.00
		95% Confidence Interval for	Lower Bound	-10.72
		Mean	Upper Bound	28.72
		5% Trimmed Mean		
		Median		12.00
		Variance		63.000
		Std. Deviation		7.937
		Minimum		C
		Maximum		15
		Range		15
	Interquartile Range			
		Skewness		-1.458
		Kurtosis		

Number of Y	ears of Experince in Programming	Std. Erro	
	Minimum		
	Maximum		
	Range		
	Interquartile Range		
	Skewness		.409
	Kurtosis		.798
Advanced	Mean		1.687
	95% Confidence Interval for	Lower Bound	
	Mean	Upper Bound	
	5% Trimmed Mean		
	Median		
	Variance		
	Std. Deviation		
	Minimum		
	Maximum		
	Range		
	Range Interquartile Range		
	Skewness		.845
	Kurtosis		1.74
Proficent	Mean		4.583
	95% Confidence Interval for	Lower Bound	
	Mean	Upper Bound	
	5% Trimmed Mean		
	Median		
	Variance		
	Std. Deviation		
	Minimum		
	Maximum		
	Range		
	Interquartile Range		
	Skewness		1.225

Extreme Values^b

	Number of Yea	ars of Experin	ce in Programming	Case Number	Value
Grdaes With Type Hints	Beginner	Highest	_1	3	16
			2	31	16
			3	49	16
			_4	5	15
			5	80	15
		Lowest	1	75	0
			2	56	0
			3	46	0
			_4	45	0
			5	14	0
	Intermediate	Highest	_1	26	18
			2	30	18
			3	33	16
			_4	101	14
			5	102	13
		Lowest	_1	107	1
			2	36	1
			3	87	2
			4	71	2
			5	58	2 ^a
	Advanced	Highest	1	4	16
			2	53	14
			3	7	11 ^c
		Lowest	1	44	5
			2	20	7
			3	38	11 ^d
	Proficent	Highest	1	16	15
		Lowest	1	29	0

- a. Only a partial list of cases with the value 2 are shown in the table of lower extremes.
- b. The requested number of extreme values exceeds the number of data points. A smaller number of extremes is displayed.
- c. Only a partial list of cases with the value 11 are shown in the table of upper extremes.
- d. Only a partial list of cases with the value 11 are shown in the table of lower extremes.

Tests of Normality

	Number of Years of	Kolmogorov-Smirnov ^a			Shapiro
	Experince in Programming	Statistic	df	Sig.	Statistic
Grdaes With Type Hints	Beginner	.181	70	<.001	.848
	Intermediate	.142	33	.090	.916
	Advanced	.199	6	.200*	.957
	Proficent	.314	3		.893

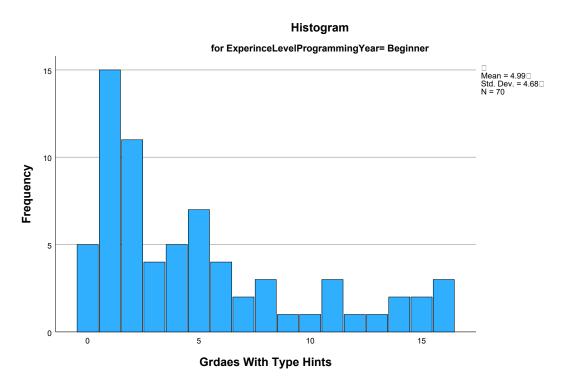
Tests of Normality

	Number of Years of	Shapiro-Wilk		
	Experince in Programming	df	Sig.	
Grdaes With Type Hints	Beginner	70	<.001	
	Intermediate	33	.015	
	Advanced	6	.798	
	Proficent	3	.363	

^{*.} This is a lower bound of the true significance.

Grdaes With Type Hints

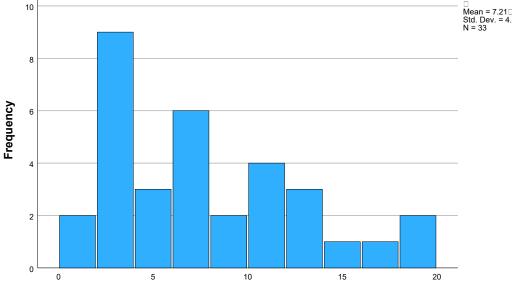
Histograms



a. Lilliefors Significance Correction

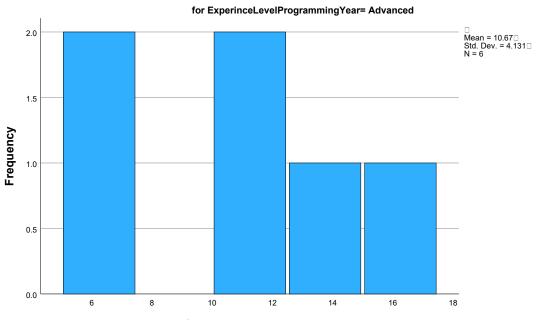
Histogram

$for \ Experince Level Programming Year = Intermediate$ Mean = 7.21 ☐ Std. Dev. = 4.967 ☐ N = 33

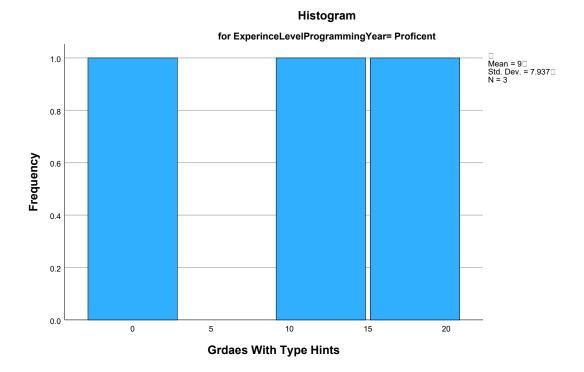


Grdaes With Type Hints

Histogram

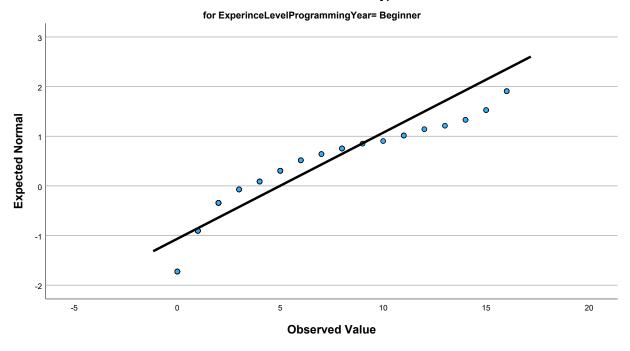


Grdaes With Type Hints



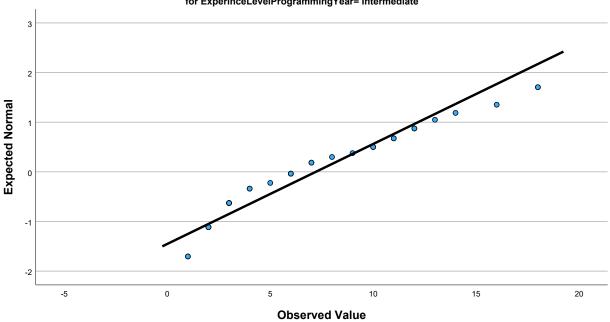
Normal Q-Q Plots

Normal Q-Q Plot of Grdaes With Type Hints



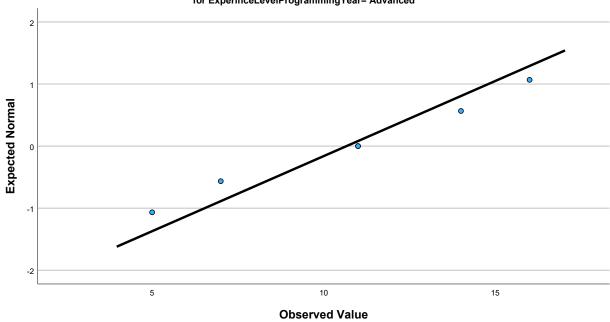
Normal Q-Q Plot of Grdaes With Type Hints

 $for \ {\tt ExperinceLevelProgrammingYear=Intermediate}$



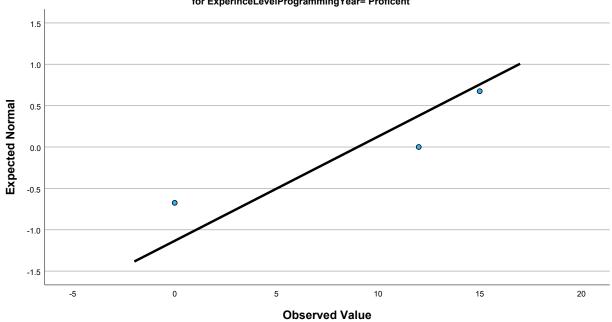
Normal Q-Q Plot of Grdaes With Type Hints

for ExperinceLevelProgrammingYear= Advanced



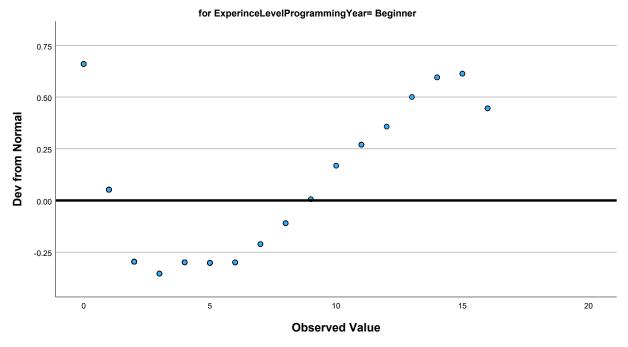
Normal Q-Q Plot of Grdaes With Type Hints

 $for \ Experince Level Programming Year = \ Proficent$



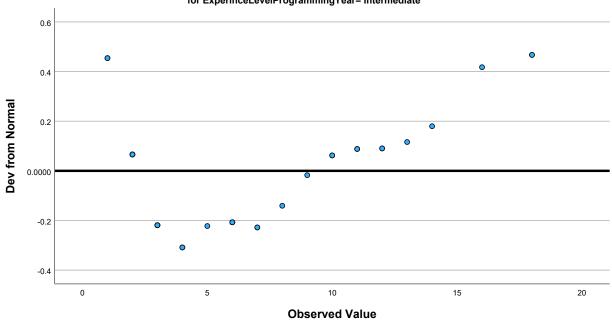
Detrended Normal Q-Q Plots

Detrended Normal Q-Q Plot of Grdaes With Type Hints



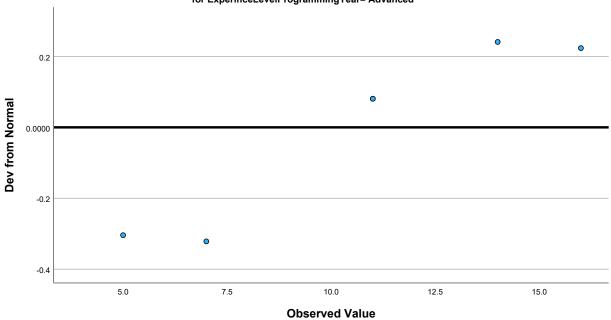
Detrended Normal Q-Q Plot of Grdaes With Type Hints

 $for \ Experince Level Programming Year = Intermediate$



Detrended Normal Q-Q Plot of Grdaes With Type Hints

for ExperinceLevelProgrammingYear= Advanced

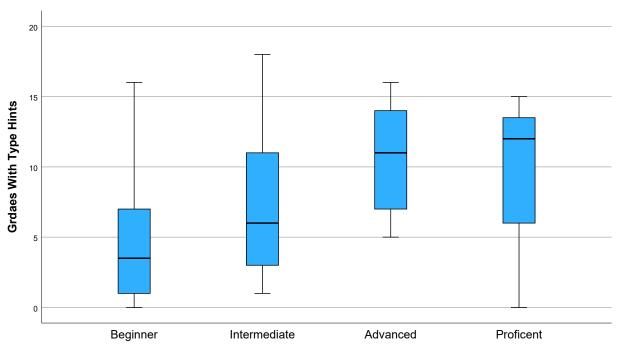


Detrended Normal Q-Q Plot of Grdaes With Type Hints

| Topic | Topi

Observed Value

Boxplots



Number of Years of Experince in Programming