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## Polyserial Correlation

Polyserial Correlation  
Import data

## Polyserial Correlation Data Context

Polyserial Correlation Data Context  
Descriptive statistics for G3 by ordinal studytime

**Means**

[PolyserialData] D:\DATA ANALYSIS\G Correlation Tests\Polyserial Correlation\S PSS\_Output\sav\Polyserial-Correlation-data.sav

**Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Final grade / continuous variable for polyserial correlation * Weekly study time / ordinal variable for polyserial correlation	649	100.0%	0	0.0%	649	100.0%

**Report**

Final grade / continuous variable for polyserial correlation

Weekly study time / ordinal variable for polyserial correlation	N	Mean	Std. Deviation	Std. Error of Mean	Minimum
<2 hours	212	10.84	3.219	.221	0
2 to 5 hours	305	12.09	3.243	.186	0
5 to 10 hours	97	13.23	2.502	.254	8
>10 hours	35	13.06	3.038	.514	6
Total	649	11.91	3.231	.127	0

**Report**

Final grade / continuous variable for polyserial correlation

Weekly study time / ordinal variable for polyserial correlation	Maximum
<2 hours	18
2 to 5 hours	19
5 to 10 hours	18
>10 hours	19
Total	19

## Distribution Context for Polyserial Correlation

Distribution Context for Polyserial Correlation  
 Continuous variable G3 by ordinal categories of studytime

**Explore**

**Weekly study time / ordinal variable for polyserial correlation**

**Case Processing Summary**

	Weekly study time / ordinal variable for polyserial correlation	Cases			
		Valid		Missing	
		N	Percent	N	Percent
Final grade / continuous variable for polyserial correlation	<2 hours	212	100.0%	0	0.0%
	2 to 5 hours	305	100.0%	0	0.0%
	5 to 10 hours	97	100.0%	0	0.0%
	>10 hours	35	100.0%	0	0.0%

**Case Processing Summary**

	Weekly study time / ordinal variable for polyserial correlation	Cases	
		Total	
		N	Percent
Final grade / continuous variable for polyserial correlation	<2 hours	212	100.0%
	2 to 5 hours	305	100.0%
	5 to 10 hours	97	100.0%
	>10 hours	35	100.0%

Distribution Context for Polyserial Correlation  
 Continuous variable G3 by ordinal categories of studytime

**Descriptives**

	Weekly study time / ordinal variable for polyserial correlation	Statistic			
Final grade / continuous variable for polyserial correlation	<2 hours	Mean	10.84		
		95% Confidence Interval for Mean	Lower Bound	10.41	
			Upper Bound	11.28	
		5% Trimmed Mean	11.04		
		Median	11.00		
		Variance	10.360		
		Std. Deviation	3.219		
		Minimum	0		
		Maximum	18		
		Range	18		
		Interquartile Range	3		
		Skewness	-1.078		
		Kurtosis	3.117		
		2 to 5 hours	2 to 5 hours	Mean	12.09
				95% Confidence Interval for Mean	Lower Bound
Upper Bound	12.46				
5% Trimmed Mean	12.25				
Median	12.00				
Variance	10.518				
Std. Deviation	3.243				
Minimum	0				
Maximum	19				
Range	19				
Interquartile Range	4				
Skewness	-1.028				
Kurtosis	3.044				
5 to 10 hours	5 to 10 hours			Mean	13.23
				95% Confidence Interval for Mean	Lower Bound
		Upper Bound	13.73		
		5% Trimmed Mean	13.27		
		Median	13.00		
		Variance	6.261		

Distribution Context for Polyserial Correlation  
 Continuous variable G3 by ordinal categories of studytime

**Descriptives**

Weekly study time / ordinal variable for polyserial correlation		Std. Error		
Final grade / continuous variable for polyserial correlation	<2 hours	Mean	.221	
		95% Confidence Interval for Mean	Lower Bound	
			Upper Bound	
		5% Trimmed Mean		
		Median		
		Variance		
		Std. Deviation		
		Minimum		
		Maximum		
		Range		
		Interquartile Range		
		Skewness	.167	
		Kurtosis	.333	
		2 to 5 hours	Mean	.186
				95% Confidence Interval for Mean
Upper Bound				
5% Trimmed Mean				
Median				
Variance				
Std. Deviation				
Minimum				
Maximum				
Range				
Interquartile Range				
Skewness	.140			
Kurtosis	.278			
5 to 10 hours	Mean			.254
				95% Confidence Interval for Mean
		Upper Bound		
		5% Trimmed Mean		
		Median		
		Variance		

Distribution Context for Polyserial Correlation  
 Continuous variable G3 by ordinal categories of studytime

**Descriptives**

Weekly study time / ordinal variable for polyserial correlation		Statistic
	Std. Deviation	2.502
	Minimum	8
	Maximum	18
	Range	10
	Interquartile Range	4
	Skewness	-.190
	Kurtosis	-.502
>10 hours	Mean	13.06
	95% Confidence Interval for Mean	
	Lower Bound	12.01
	Upper Bound	14.10
	5% Trimmed Mean	13.07
	Median	13.00
	Variance	9.232
	Std. Deviation	3.038
	Minimum	6
	Maximum	19
	Range	13
	Interquartile Range	4
	Skewness	.209
	Kurtosis	-.339

Distribution Context for Polyserial Correlation  
Continuous variable G3 by ordinal categories of studytime

**Descriptives**

Weekly study time / ordinal variable for polyserial correlation		Std. Error
	Std. Deviation	
	Minimum	
	Maximum	
	Range	
	Interquartile Range	
	Skewness	.245
	Kurtosis	.485
>10 hours	Mean	.514
	95% Confidence Interval for Mean	Lower Bound Upper Bound
	5% Trimmed Mean	
	Median	
	Variance	
	Std. Deviation	
	Minimum	
	Maximum	
	Range	
	Interquartile Range	
	Skewness	.398
	Kurtosis	.778

**Tests of Normality**

	Weekly study time / ordinal variable for polyserial correlation	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-...
		Statistic	df	Sig.	Statistic
Final grade / continuous variable for polyserial correlation	<2 hours	.161	212	.000	.898
	2 to 5 hours	.125	305	.000	.917
	5 to 10 hours	.103	97	.013	.970
	>10 hours	.136	35	.099	.955

Distribution Context for Polyserial Correlation  
 Continuous variable G3 by ordinal categories of studytime

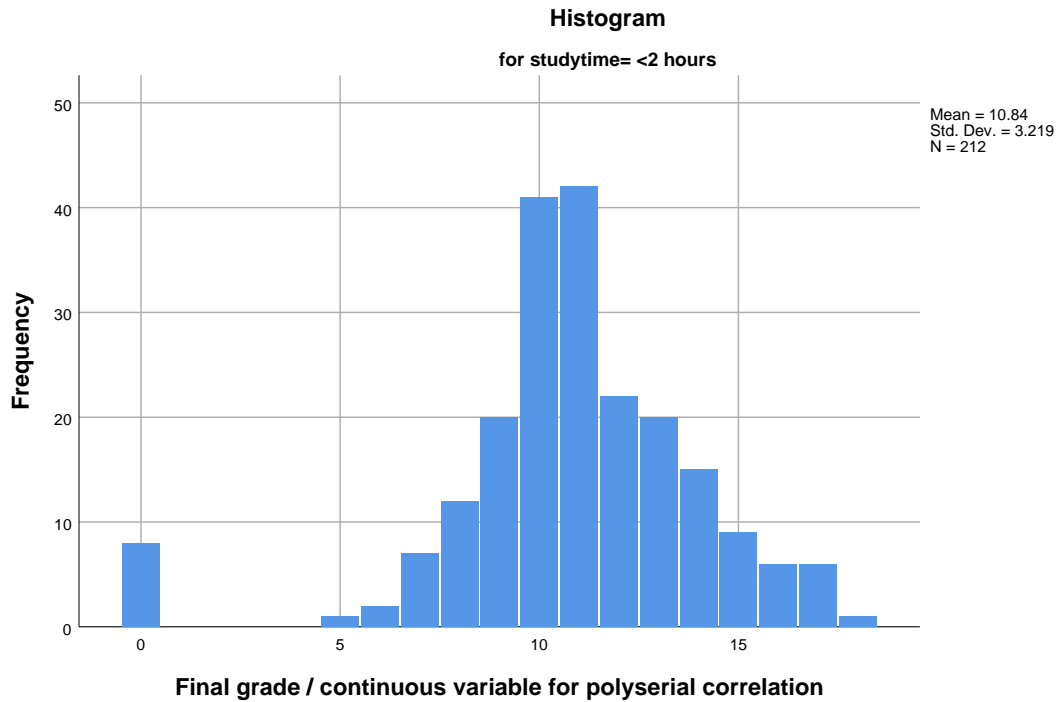
**Tests of Normality**

Final grade / continuous variable for polyserial correlation	Weekly study time / ordinal variable for polyserial correlation	Shapiro-Wilk	
		df	Sig.
Final grade / continuous variable for polyserial correlation	<2 hours	212	.000
	2 to 5 hours	305	.000
	5 to 10 hours	97	.025
	>10 hours	35	.166

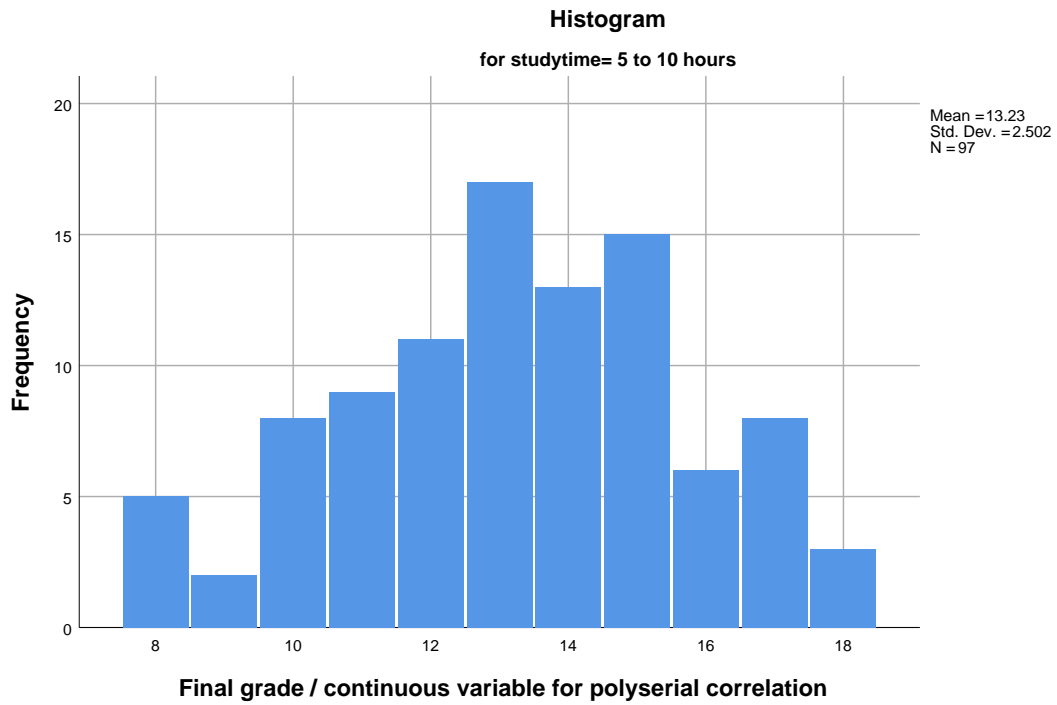
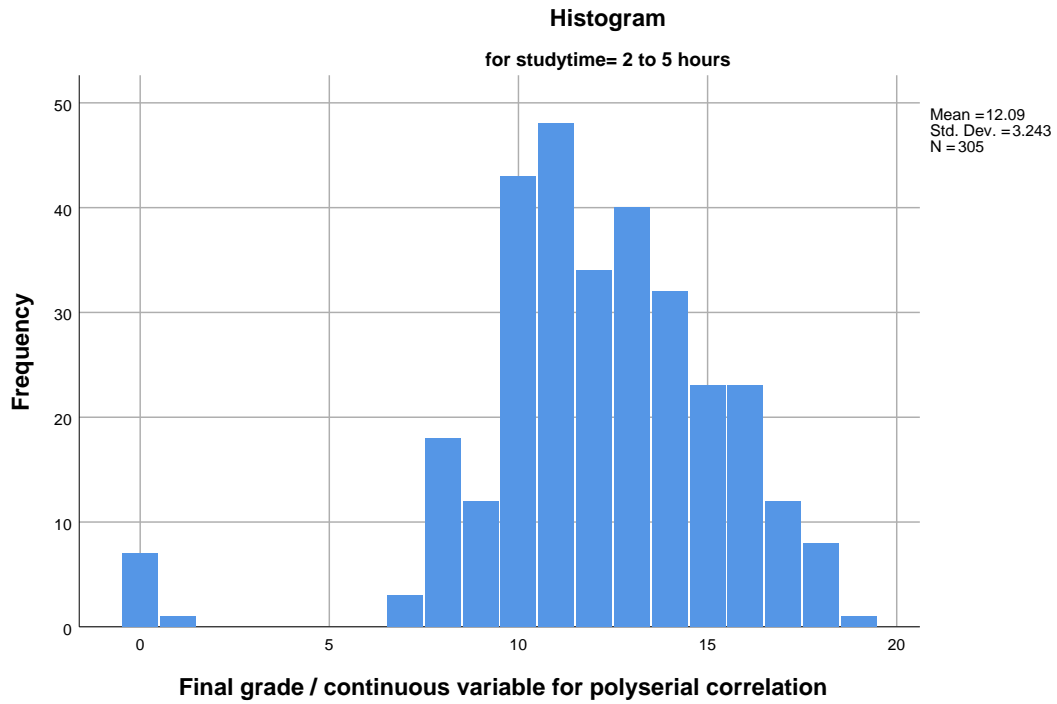
a. Lilliefors Significance Correction

**Final grade / continuous variable for polyserial correlation**

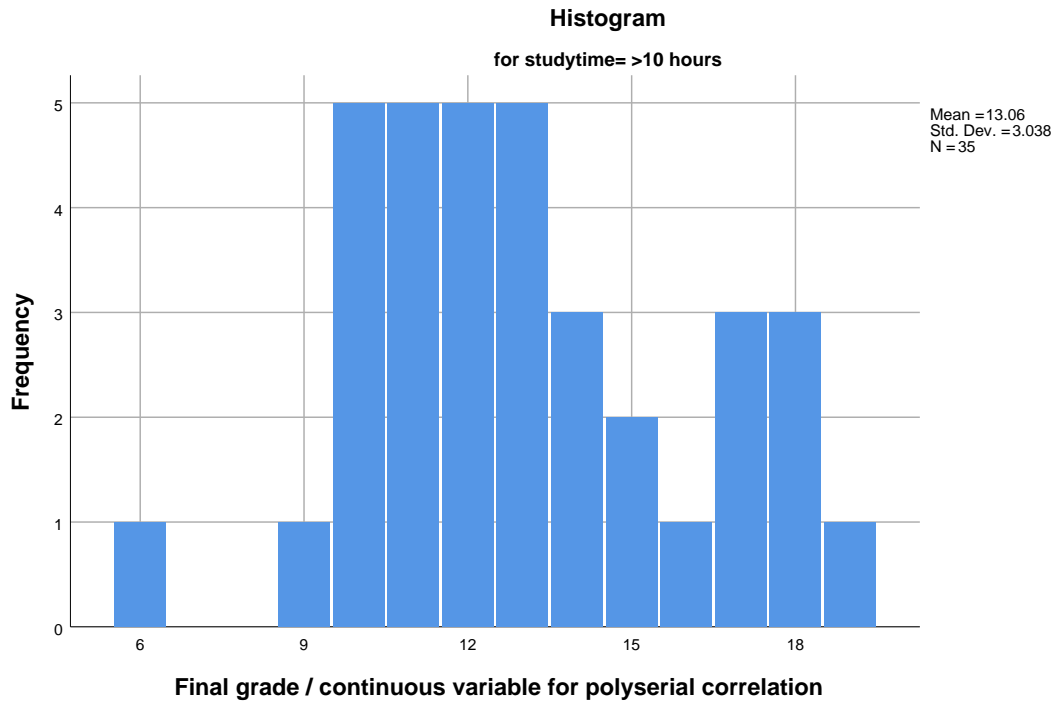
**Histograms**



Distribution Context for Polyserial Correlation  
Continuous variable G3 by ordinal categories of studytime



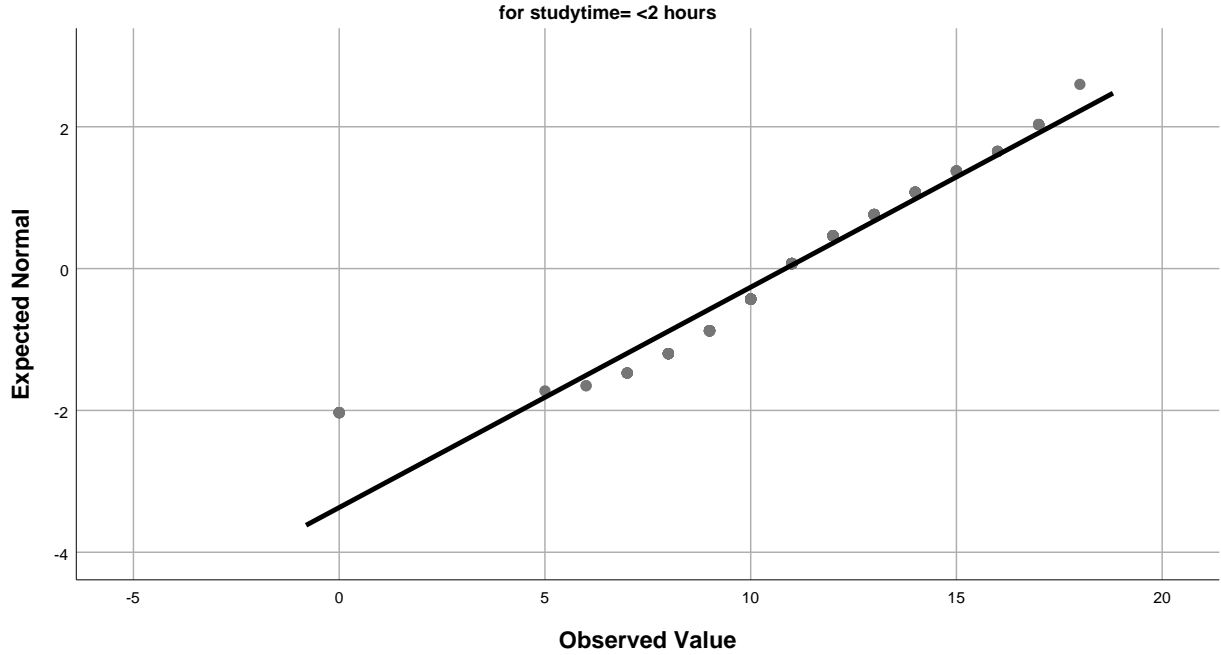
Distribution Context for Polyserial Correlation  
Continuous variable G3 by ordinal categories of studytime



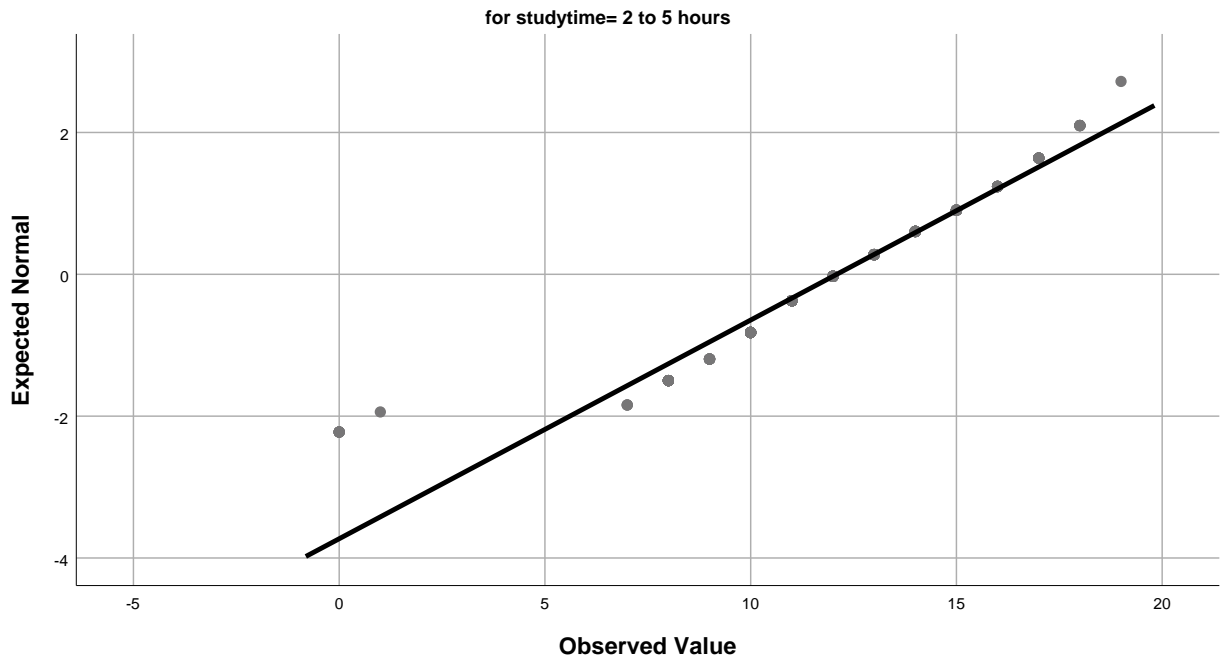
**Normal Q-Q Plots**

Distribution Context for Polyserial Correlation  
Continuous variable G3 by ordinal categories of studytime

Normal Q-Q Plot of Final grade / continuous variable for polyserial correlation

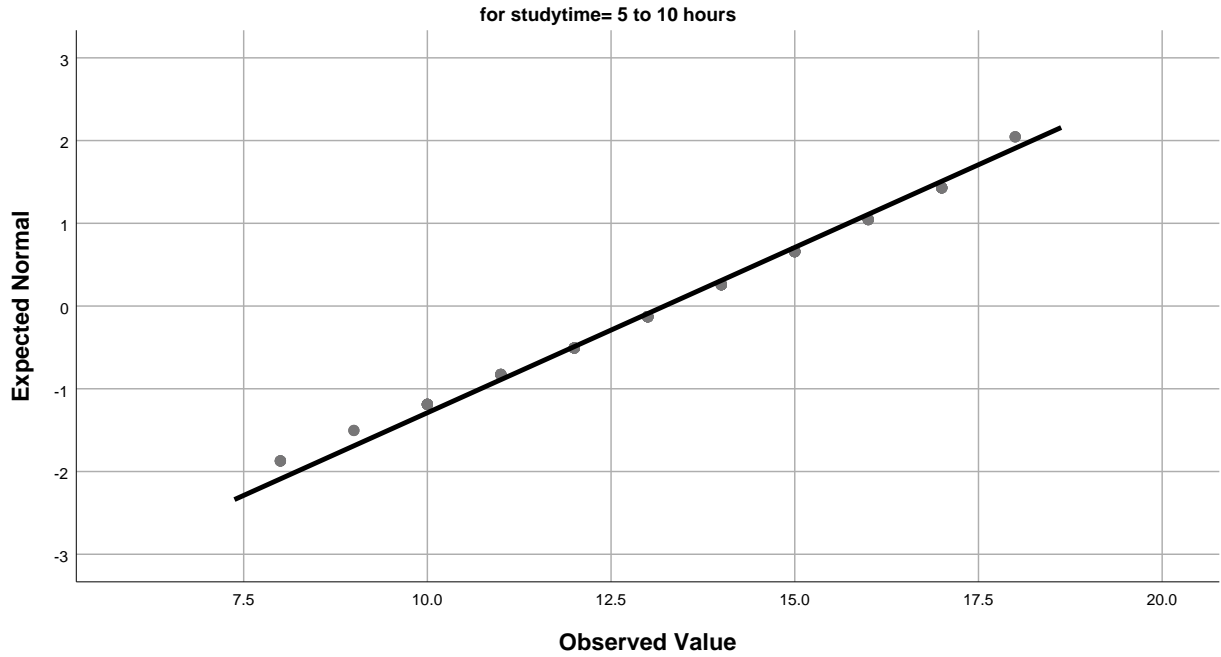


Normal Q-Q Plot of Final grade / continuous variable for polyserial correlation

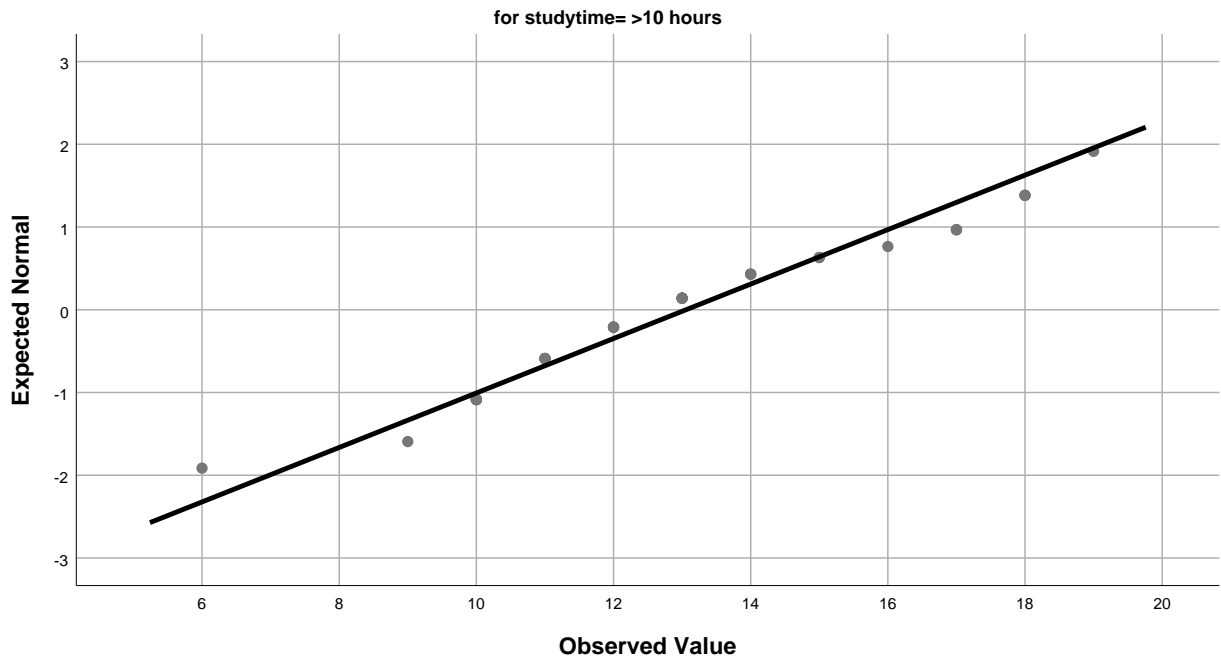


Distribution Context for Polyserial Correlation  
Continuous variable G3 by ordinal categories of studytime

Normal Q-Q Plot of Final grade / continuous variable for polyserial correlation

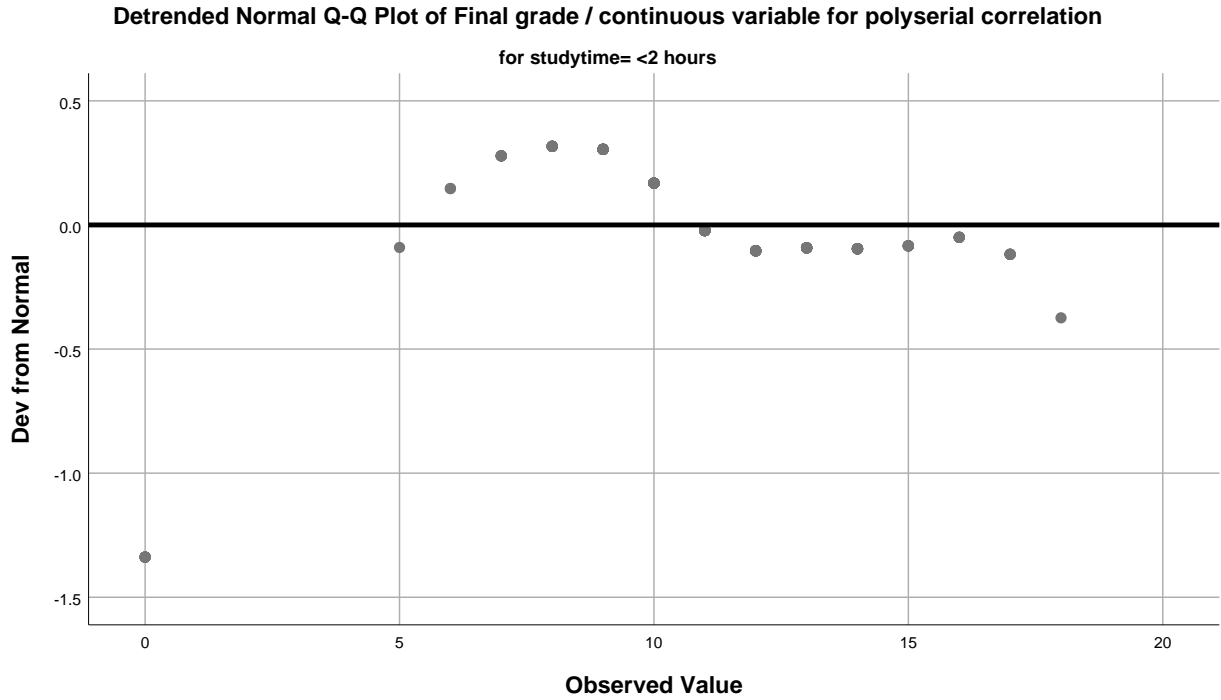


Normal Q-Q Plot of Final grade / continuous variable for polyserial correlation



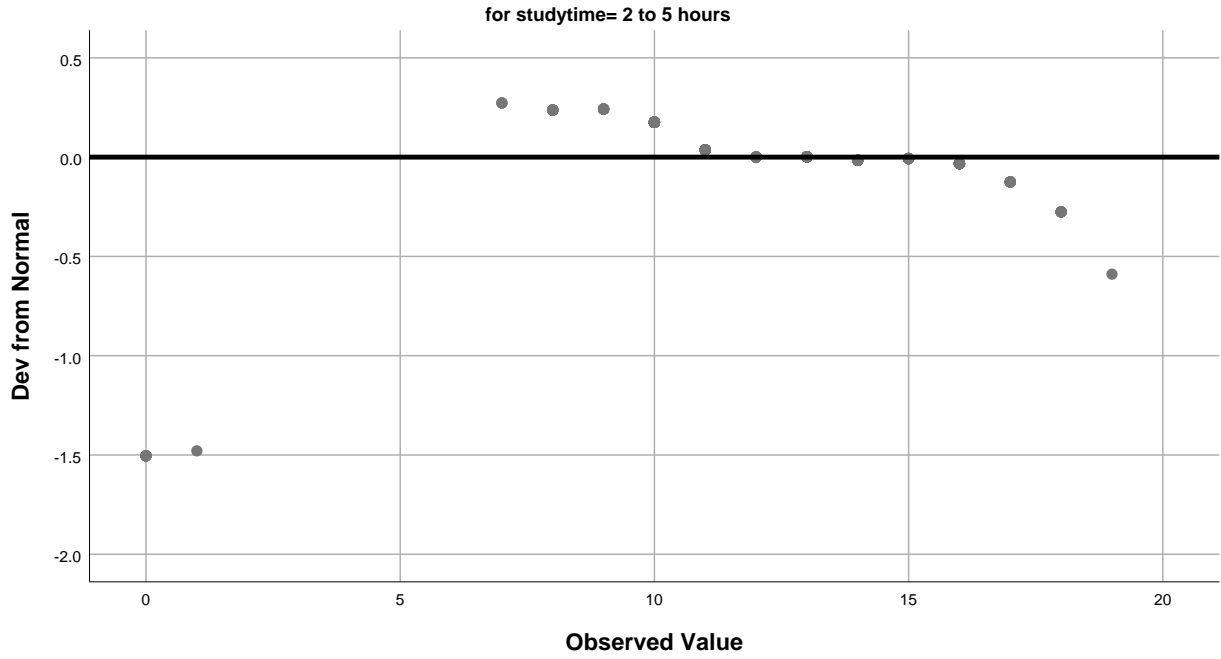
Distribution Context for Polyserial Correlation  
Continuous variable G3 by ordinal categories of studytime

### Detrended Normal Q-Q Plots

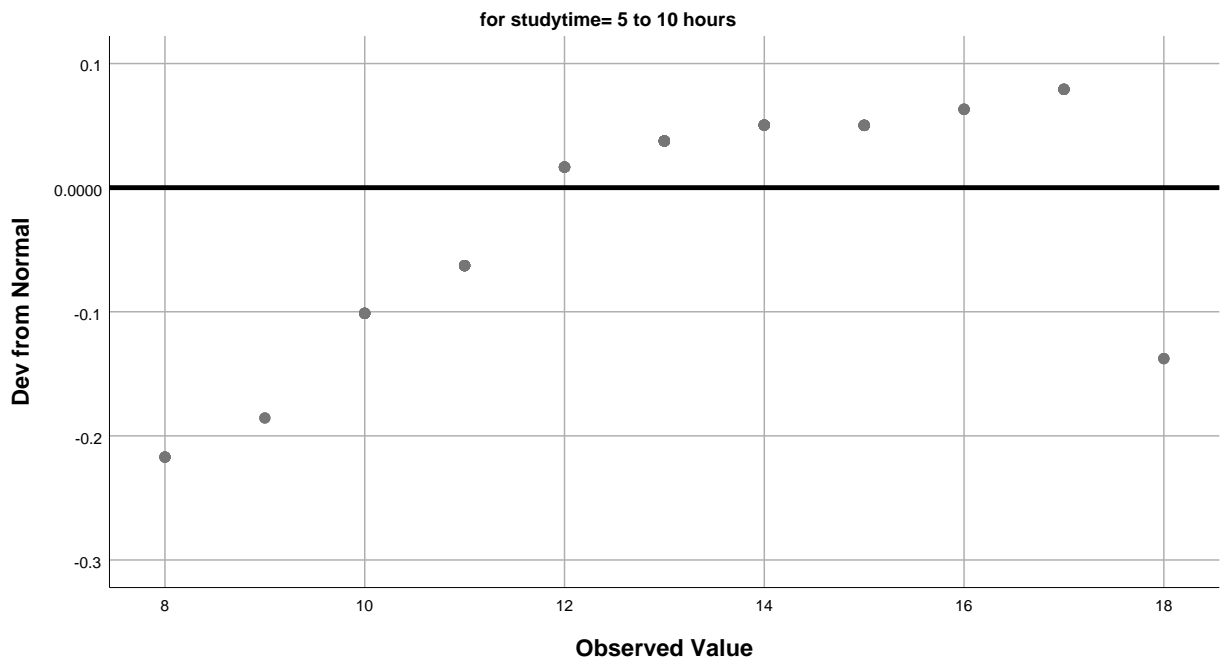


Distribution Context for Polyserial Correlation  
Continuous variable G3 by ordinal categories of studytime

Detrended Normal Q-Q Plot of Final grade / continuous variable for polyserial correlation

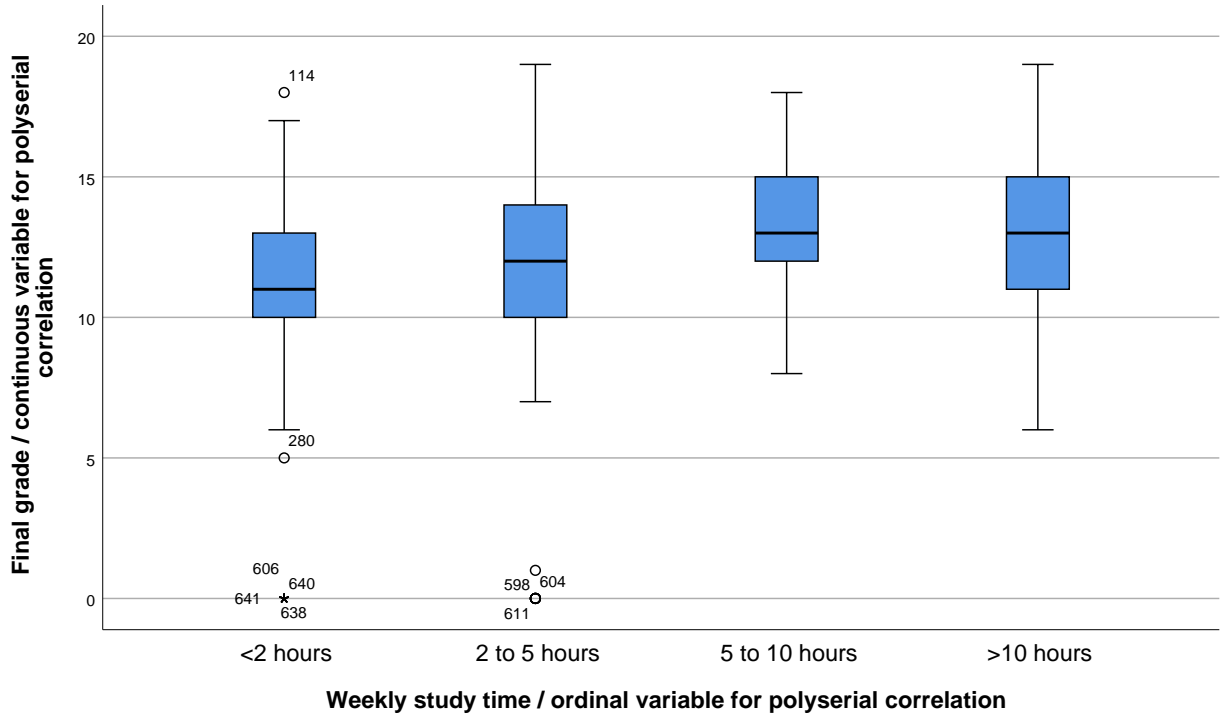
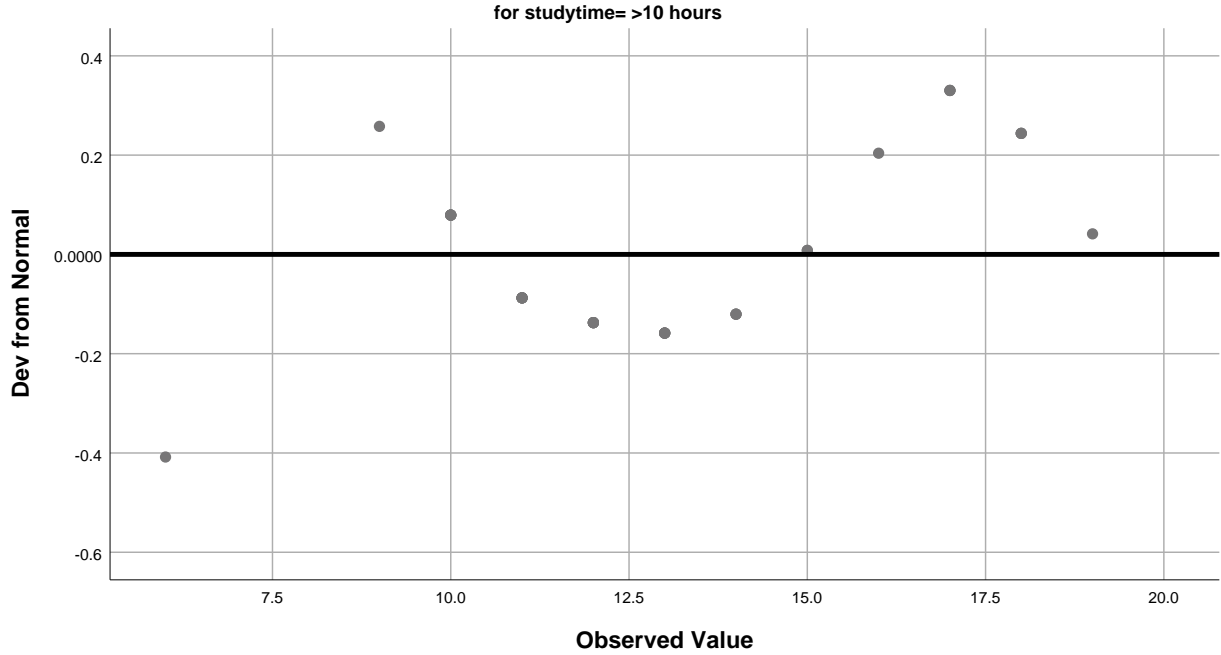


Detrended Normal Q-Q Plot of Final grade / continuous variable for polyserial correlation



Distribution Context for Polyserial Correlation  
 Continuous variable G3 by ordinal categories of studytime

Detrended Normal Q-Q Plot of Final grade / continuous variable for polyserial correlation



## Simple Correlation Benchmarks

```
>Warning # 2004.  Command name: SUBTITLE  
>The subtitle given exceeds 60 characters in length.  The first 60 characters  
>will be used.
```

Simple Correlation Benchmarks  
Pearson with category codes and Spearman rank correlation ar

## Correlations

### Correlations

		Final grade / continuous variable for polyserial correlation	Weekly study time / ordinal variable for polyserial correlation
Final grade / continuous variable for polyserial correlation	Pearson Correlation	1	.250**
	Sig. (2-tailed)		.000
	N	649	649
Weekly study time / ordinal variable for polyserial correlation	Pearson Correlation	.250**	1
	Sig. (2-tailed)	.000	
	N	649	649

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Nonparametric Correlations

### Correlations

		Final grade / continuous variable for polyserial correlation	Weekly study time / ordinal variable for polyserial correlation
Spearman's rho	Final grade / continuous variable for polyserial correlation	Correlation Coefficient	1.000
		Sig. (2-tailed)	.275**
		N	.000
Weekly study time / ordinal variable for polyserial correlation	Final grade / continuous variable for polyserial correlation	Correlation Coefficient	.275**
		Sig. (2-tailed)	1.000
		N	.000
		N	649

\*\* . Correlation is significant at the 0.01 level (2-tailed).

```
Traceback (most recent call last):
  File "<string>", line 4, in <module>
ImportError: cannot import name 'NormalDist'
```