

OUTPUT ACTIVATE ParametricNonparametricOutput.

45 0 M> OUTPUT ACTIVATE ParametricNonparametricOutput.

TITLE 'Parametric vs Nonparametric Tests SPSS Output'.

46 0 M> TITLE 'Parametric vs Nonparametric Tests SPSS Output'.

## Parametric vs Nonparametric Tests SPSS Output

```
SUBTITLE 't-test vs Mann-Whitney, ANOVA vs Kruskal-Wallis, Pearson vs Spearman
'.
```

```
47 0 M> SUBTITLE 't-test vs Mann-Whitney, ANOVA vs Kruskal-Wallis, Pearson
vs Spearman'.
```

```
>Warning # 2004. Command name: SUBTITLE
```

```
>The subtitle given exceeds 60 characters in length. The first 60 characters
>will be used.
```

Parametric vs Nonparametric Tests SPSS Output  
t-test vs Mann-Whitney, ANOVA vs Kruskal-Wallis, Pearson vs

```
48 0 M>
GET DATA
49 0 M> GET DATA
    /TYPE=TXT
50 0 M>    /TYPE=TXT
    /FILE='D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs
Nonparametric Tests\dataset.csv'
51 0 M>    /FILE='D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Pa
rametric vs Nonparametric Tests\dataset.csv'
    /ENCODING='UTF8'
52 0 M>    /ENCODING='UTF8'
    /DELCASE=LINE
53 0 M>    /DELCASE=LINE
    /DELIMITERS=', '
54 0 M>    /DELIMITERS=', '
    /QUALIFIER=' "'
55 0 M>    /QUALIFIER=' "'
    /ARRANGEMENT=DELIMITED
56 0 M>    /ARRANGEMENT=DELIMITED
    /FIRSTCASE=2
57 0 M>    /FIRSTCASE=2
    /VARIABLES=
58 0 M>    /VARIABLES=
    school A8
59 0 M>    school A8
    sex A8
60 0 M>    sex A8
    age F8.0
61 0 M>    age F8.0
    address A8
62 0 M>    address A8
    famsize A8
63 0 M>    famsize A8
    Pstatus A8
64 0 M>    Pstatus A8
    Medu F8.0
65 0 M>    Medu F8.0
    Fedu F8.0
66 0 M>    Fedu F8.0
```

Parametric vs Nonparametric Tests SPSS Output  
t-test vs Mann-Whitney, ANOVA vs Kruskal-Wallis, Pearson vs

Mjob A16  
67 0 M> Mjob A16  
Fjob A16  
68 0 M> Fjob A16  
reason A16  
69 0 M> reason A16  
guardian A16  
70 0 M> guardian A16  
traveltime F8.0  
71 0 M> traveltime F8.0  
studytime F8.0  
72 0 M> studytime F8.0  
failures F8.0  
73 0 M> failures F8.0  
schoolsup A8  
74 0 M> schoolsup A8  
famsup A8  
75 0 M> famsup A8  
paid A8  
76 0 M> paid A8  
activities A8  
77 0 M> activities A8  
nursery A8  
78 0 M> nursery A8  
higher A8  
79 0 M> higher A8  
internet A8  
80 0 M> internet A8  
romantic A8  
81 0 M> romantic A8  
famrel F8.0  
82 0 M> famrel F8.0  
freetime F8.0  
83 0 M> freetime F8.0  
goout F8.0  
84 0 M> goout F8.0  
Dalc F8.0  
85 0 M> Dalc F8.0  
Walc F8.0

Parametric vs Nonparametric Tests SPSS Output  
t-test vs Mann-Whitney, ANOVA vs Kruskal-Wallis, Pearson vs

```
86  0 M>      Walc F8.0
      health F8.0
87  0 M>      health F8.0
      absences F8.0
88  0 M>      absences F8.0
      G1 F8.0
89  0 M>      G1 F8.0
      G2 F8.0
90  0 M>      G2 F8.0
      G3 F8.0.
91  0 M>      G3 F8.0.
DATASET NAME ParametricNonparametricData.
92  0 M> DATASET NAME ParametricNonparametricData.
EXECUTE.
93  0 M> EXECUTE.

94  0 M>
VARIABLE LABELS
95  0 M> VARIABLE LABELS
      sex 'Sex group'
96  0 M>      sex 'Sex group'
      studytime 'Weekly study time category'
97  0 M>      studytime 'Weekly study time category'
      G1 'First period grade'
98  0 M>      G1 'First period grade'
      G2 'Second period grade'
99  0 M>      G2 'Second period grade'
      G3 'Final grade'.
100 0 M>      G3 'Final grade'.

101 0 M>
COMPUTE sexgrp = $SYSMIS.
102 0 M> COMPUTE sexgrp = $SYSMIS.
IF (sex = 'F') sexgrp = 1.
103 0 M> IF (sex = 'F') sexgrp = 1.
IF (sex = 'M') sexgrp = 2.
104 0 M> IF (sex = 'M') sexgrp = 2.
VARIABLE LABELS sexgrp 'Sex group code'.
105 0 M> VARIABLE LABELS sexgrp 'Sex group code'.
```

Parametric vs Nonparametric Tests SPSS Output  
t-test vs Mann-Whitney, ANOVA vs Kruskal-Wallis, Pearson vs

```
VALUE LABELS sexgrp 1 'Female' 2 'Male'.
 106  0 M> VALUE LABELS sexgrp 1 'Female' 2 'Male'.
FORMATS sexgrp (F1.0).
 107  0 M> FORMATS sexgrp (F1.0).
EXECUTE.
 108  0 M> EXECUTE.

 109  0 M>
SAVE OUTFILE='D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\Parametric-vs-Nonparametric-data.sav'
.
 110  0 M> SAVE OUTFILE='D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\Parametric-vs-Nonparametric-data.sav'.

 111  0 M>
TITLE 'Descriptive statistics'.
 112  0 M> TITLE 'Descriptive statistics'.
```

## Descriptive statistics

SUBTITLE 'Core variables used in parametric and nonparametric examples'.

113 0 M> SUBTITLE 'Core variables used in parametric and nonparametric examples'.

Descriptive statistics  
Core variables used in parametric and nonparametric examples

```
DESCRIPTIVES VARIABLES=G3 G2 studytime
114 0 M> DESCRIPTIVES VARIABLES=G3 G2 studytime
      /STATISTICS=MEAN STDDEV MIN MAX.
115 0 M>      /STATISTICS=MEAN STDDEV MIN MAX.
```

## Descriptives

### Notes

Output Created		18-JUN-2026 21:48:19
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\Parametric-vs-Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=G3 G2 studytime /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.12

[ParametricNonparametricData] D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS\_Output\sav\Parametric-vs-Nonparametric-data.sav

Descriptive statistics  
Core variables used in parametric and nonparametric examples

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
G3	649	0	19	11.91	3.231
G2	649	0	19	11.57	2.914
studytime	649	1	4	1.93	.830
Valid N (listwise)	649				

```
FREQUENCIES VARIABLES=sexgrp studytime
116 0 M> FREQUENCIES VARIABLES=sexgrp studytime
/ORDER=ANALYSIS.
117 0 M> /ORDER=ANALYSIS.
```

**Frequencies**

**Notes**

Output Created	18-JUN-2026 21:48:19	
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\P arametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.

Descriptive statistics  
Core variables used in parametric and nonparametric examples

**Notes**

Syntax		FREQUENCIES VARIABLES=sexgrp studytime /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.05

**Statistics**

		sexgrp	studytime
N	Valid	649	649
	Missing	0	0

**Frequency Table**

**sexgrp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	383	59.0	59.0	59.0
	2	266	41.0	41.0	100.0
	Total	649	100.0	100.0	

**studytime**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	212	32.7	32.7	32.7
	2	305	47.0	47.0	79.7
	3	97	14.9	14.9	94.6
	4	35	5.4	5.4	100.0
	Total	649	100.0	100.0	

```
118 0 M>
TITLE 'Distribution and boxplot check'.
119 0 M> TITLE 'Distribution and boxplot check'.
```

## Distribution and boxplot check

```
SUBTITLE 'G3 by sex group'.
```

```
120 0 M> SUBTITLE 'G3 by sex group'.
```

Distribution and boxplot check  
G3 by sex group

```

EXAMINE VARIABLES=G3 BY sexgrp
121  0 M>  EXAMINE VARIABLES=G3 BY sexgrp
        /PLOT BOXPLOT
122  0 M>    /PLOT BOXPLOT
        /COMPARE GROUPS
123  0 M>    /COMPARE GROUPS
        /STATISTICS DESCRIPTIVES
124  0 M>    /STATISTICS DESCRIPTIVES
        /CINTERVAL 95
125  0 M>    /CINTERVAL 95
        /MISSING LISTWISE
126  0 M>    /MISSING LISTWISE
        /NOTOTAL.
127  0 M>    /NOTOTAL.

```

## Explore

### Notes

Output Created		18-JUN-2026 21:48:19
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\P arametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649

Distribution and boxplot check  
G3 by sex group

**Notes**

Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.
Syntax		EXAMINE VARIABLES=G3 BY sexgrp /PLOT BOXPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /INTERVAL 95 /MISSING LISTWISE...
Resources	Processor Time	00:00:05.92
	Elapsed Time	00:00:02.89

**Sex group code**

**Case Processing Summary**

	sexgrp	Valid		Cases Missing		Total	
		N	Percent	N	Percent	N	Percent
G3	1	383	100.0%	0	0.0%	383	100.0%
	2	266	100.0%	0	0.0%	266	100.0%

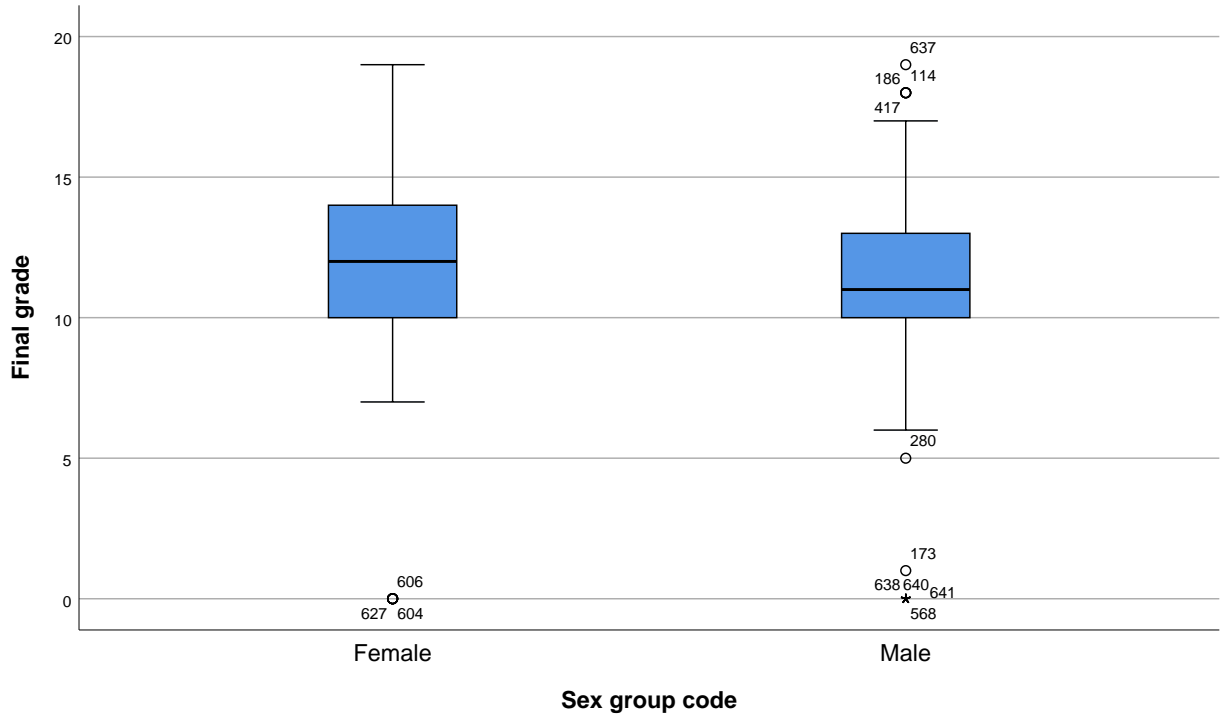
Distribution and boxplot check  
G3 by sex group

**Descriptives**

sexgrp			Statistic	Std. Error	
G3	1	Mean	12.25	.160	
		95% Confidence Interval for Mean	Lower Bound	11.94	
			Upper Bound	12.57	
		5% Trimmed Mean	12.37		
		Median	12.00		
		Variance	9.760		
		Std. Deviation	3.124		
		Minimum	0		
		Maximum	19		
		Range	19		
		Interquartile Range	4		
		Skewness	-.857	.125	
		Kurtosis	2.683	.249	
		2	Mean	11.41	.204
	95% Confidence Interval for Mean		Lower Bound	11.01	
			Upper Bound	11.81	
	5% Trimmed Mean		11.60		
	Median		11.00		
	Variance		11.027		
	Std. Deviation		3.321		
	Minimum		0		
	Maximum		19		
Range	19				
Interquartile Range	3				
Skewness	-.980	.149			
Kurtosis	2.803	.298			

**Final grade**

Distribution and boxplot check  
G3 by sex group



```
128 0 M>
TITLE 'Parametric test: Welch independent-samples t test'.
129 0 M> TITLE 'Parametric test: Welch independent-samples t test'.
```

Parametric test: Welch independent-samples t test

```
SUBTITLE 'G3 by sex group'.
```

```
130 0 M> SUBTITLE 'G3 by sex group'.
```

Parametric test: Welch independent-samples t test  
G3 by sex group

```
T-TEST GROUPS=sexgrp(1 2)
131 0 M> T-TEST GROUPS=sexgrp(1 2)
      /MISSING=ANALYSIS
132 0 M>      /MISSING=ANALYSIS
      /VARIABLES=G3
133 0 M>      /VARIABLES=G3
      /CRITERIA=CI(.95).
134 0 M>      /CRITERIA=CI(.95).
```

## T-Test

### Notes

Output Created		18-JUN-2026 21:48:22
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\Pa rametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of- range data for any variable in the analysis.
Syntax		T-TEST GROUPS=sexgrp (1 2) /MISSING=ANALYSIS /VARIABLES=G3 /CRITERIA=CI(.95).

Parametric test: Welch independent-samples t test  
G3 by sex group

**Notes**

Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

**Group Statistics**

	sexgrp	N	Mean	Std. Deviation	Std. Error Mean
G3	1	383	12.25	3.124	.160
	2	266	11.41	3.321	.204

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
G3	Equal variances assumed	.004	.950	3.311	647
	Equal variances not assumed			3.275	547.439

**Independent Samples Test**

		t-test for Equality of Means			
		Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence ... Lower
G3	Equal variances assumed	.001	.847	.256	.345
	Equal variances not assumed	.001	.847	.259	.339

Parametric test: Welch independent-samples t test  
G3 by sex group

**Independent Samples Test**

t-test for Equality  
of Means  
95% Confidence  
Interval of the ...  
Upper

G3	Equal variances assumed	1.350
	Equal variances not assumed	1.355

135 0 M>

TITLE 'Nonparametric test: Mann-Whitney U test'.

136 0 M> TITLE 'Nonparametric test: Mann-Whitney U test'.

## Nonparametric test: Mann-Whitney U test

```
SUBTITLE 'G3 by sex group'.
```

```
137 0 M> SUBTITLE 'G3 by sex group'.
```

Nonparametric test: Mann-Whitney U test  
G3 by sex group

NPART TESTS

```

138  0 M>  NPART TESTS
      /M-W=G3 BY sexgrp(1 2)
139  0 M>    /M-W=G3 BY sexgrp(1 2)
      /MISSING ANALYSIS.
140  0 M>    /MISSING ANALYSIS.

```

## NPar Tests

### Notes

Output Created		18-JUN-2026 21:48:22
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\P arametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable (s) used in that test.
Syntax		NPART TESTS /M-W=G3 BY sexgrp(1 2) /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01
	Number of Cases Allowed <sup>a</sup>	449389

Nonparametric test: Mann-Whitney U test  
G3 by sex group

a. Based on availability of workspace memory.

## Mann-Whitney Test

Ranks				
	sexgrp	N	Mean Rank	Sum of Ranks
G3	1	383	345.83	132452.50
	2	266	295.01	78472.50
	Total	649		

### Test Statistics<sup>a</sup>

G3	
Mann-Whitney U	42961.500
Wilcoxon W	78472.500
Z	-3.418
Asymp. Sig. (2-tailed)	.001

a. Grouping Variable: sexgrp

```
141 0 M>
TITLE 'Parametric test: One-way ANOVA'.
142 0 M> TITLE 'Parametric test: One-way ANOVA'.
```

Parametric test: One-way ANOVA

```
SUBTITLE 'G3 by studytime'.
```

```
143 0 M> SUBTITLE 'G3 by studytime'.
```

Parametric test: One-way ANOVA  
G3 by studytime

```
ONEWAY G3 BY studytime
144 0 M> ONEWAY G3 BY studytime
      /STATISTICS DESCRIPTIVES HOMOGENEITY
145 0 M>      /STATISTICS DESCRIPTIVES HOMOGENEITY
      /MISSING ANALYSIS.
146 0 M>      /MISSING ANALYSIS.
```

## Oneway

### Notes

Output Created		18-JUN-2026 21:48:23
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\Pa arametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY G3 BY studytime /STATISTICS DESCRIPTIVES HOMOGENEITY /MISSING ANALYSIS.

Parametric test: One-way ANOVA  
G3 by studytime

**Notes**

Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

**Descriptives**

G3

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
1	212	10.84	3.219	.221	10.41	11.28	0
2	305	12.09	3.243	.186	11.73	12.46	0
3	97	13.23	2.502	.254	12.72	13.73	8
4	35	13.06	3.038	.514	12.01	14.10	6
Total	649	11.91	3.231	.127	11.66	12.16	0

**Descriptives**

G3

	Maximum
1	18
2	19
3	18
4	19
Total	19

**Test of Homogeneity of Variances**

		Levene Statistic	df1	df2	Sig.
G3	Based on Mean	.985	3	645	.400
	Based on Median	1.026	3	645	.380
	Based on Median and with adjusted df	1.026	3	609.885	.380
	Based on trimmed mean	1.081	3	645	.356

Parametric test: One-way ANOVA  
G3 by studytime

**ANOVA**

G3

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	465.078	3	155.026	15.876	.000
Within Groups	6298.189	645	9.765		
Total	6763.267	648			

147 0 M>

TITLE 'Nonparametric test: Kruskal-Wallis test'.

148 0 M> TITLE 'Nonparametric test: Kruskal-Wallis test'.

Nonparametric test: Kruskal-Wallis test

```
SUBTITLE 'G3 by studytime'.
```

```
149 0 M> SUBTITLE 'G3 by studytime'.
```

Nonparametric test: Kruskal-Wallis test  
G3 by studytime

```

NPAR TESTS
 150  0 M>  NPAR TESTS
      /K-W=G3 BY studytime(1 4)
 151  0 M>    /K-W=G3 BY studytime(1 4)
      /MISSING ANALYSIS.
 152  0 M>    /MISSING ANALYSIS.

```

## NPar Tests

### Notes

Output Created		18-JUN-2026 21:48:23
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\P arametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable (s) used in that test.
Syntax	NPAR TESTS /K-W=G3 BY studytime(1 4) /MISSING ANALYSIS.	

Nonparametric test: Kruskal-Wallis test  
G3 by studytime

**Notes**

Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.07
	Number of Cases Allowed <sup>a</sup>	449389

a. Based on availability of workspace memory.

**Kruskal-Wallis Test**

**Ranks**

	studytime	N	Mean Rank
G3	1	212	258.91
	2	305	338.26
	3	97	406.76
	4	35	383.13
	Total	649	

**Test Statistics<sup>a,b</sup>**

G3	
Kruskal-Wallis H	50.316
df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: studytime

```
153 0 M>
TITLE 'Parametric correlation: Pearson'.
154 0 M> TITLE 'Parametric correlation: Pearson'.
```

Parametric correlation: Pearson

```
SUBTITLE 'G2 and G3'.
```

```
155 0 M> SUBTITLE 'G2 and G3'.
```

Parametric correlation : Pearson  
G2 and G3

CORRELATIONS

```

156  0 M>  CORRELATIONS
      /VARIABLES=G2 G3
157  0 M>      /VARIABLES=G2 G3
      /PRINT=TWOTAIL NOSIG
158  0 M>      /PRINT=TWOTAIL NOSIG
      /MISSING=PAIRWISE.
159  0 M>      /MISSING=PAIRWISE.

```

## Correlations

### Notes

Output Created		18-JUN-2026 21:48:23
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\Pa rametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=G2 G3 /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.

Parametric correlation: Pearson  
G2 and G3

**Notes**

Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.07

**Correlations**

		G2	G3
G2	Pearson Correlation	1	.919**
	Sig. (2-tailed)		.000
	N	649	649
G3	Pearson Correlation	.919**	1
	Sig. (2-tailed)	.000	
	N	649	649

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

```
160 0 M>
TITLE 'Nonparametric correlation: Spearman'.
161 0 M> TITLE 'Nonparametric correlation: Spearman'.
```

## Nonparametric correlation : Spearman

```
SUBTITLE 'G2 and G3'.
```

```
162 0 M> SUBTITLE 'G2 and G3'.
```

Nonparametric correlation : Spearman  
G2 and G3

```
NONPAR CORR
163  0 M>  NONPAR CORR
      /VARIABLES=G2 G3
164  0 M>      /VARIABLES=G2 G3
      /PRINT=SPEARMAN TWOTAIL
165  0 M>      /PRINT=SPEARMAN TWOTAIL
      /MISSING=PAIRWISE.
166  0 M>      /MISSING=PAIRWISE.
```

## Nonparametric Correlations

### Notes

Output Created		18-JUN-2026 21:48:23
Comments		
Input	Data	D:\DATA ANALYSIS\A Basic Descriptive Statistics Guides\Parametric vs Nonparametric Tests\SPSS_Output\sav\Pa rametric-vs- Nonparametric-data.sav
	Active Dataset	ParametricNonparametric Data
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax	NONPAR CORR /VARIABLES=G2 G3 /PRINT=SPEARMAN TWOTAIL /MISSING=PAIRWISE.	

Nonparametric correlation : Spearman  
G2 and G3

**Notes**

Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.04
	Number of Cases Allowed	629145 cases <sup>a</sup>

a. Based on availability of workspace memory

**Correlations**

			G2	G3
Spearman's rho	G2	Correlation Coefficient	1.000	.944
		Sig. (2-tailed)	.	.000
		N	649	649
	G3	Correlation Coefficient	.944	1.000
		Sig. (2-tailed)	.000	.
		N	649	649

```

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