

## Host

### Notes

Output Created		23-JUN-2026 00:11:22
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax	HOST COMMAND='cmd /c if not exist "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output" mkdir "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output".'	
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.40

## Host

### Notes

Output Created		23-JUN-2026 00:11:23
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax	HOST COMMAND='cmd /c if not exist "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\png" mkdir "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\png"'.	
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.12

### Host

#### Notes

Output Created		23-JUN-2026 00:11:23
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax	HOST COMMAND='cmd /c if not exist "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\tables" mkdir "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\tables"'.	
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.12

## Host

### Notes

Output Created		23-JUN-2026 00:11:23
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax	HOST COMMAND='cmd /c if not exist "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\pdf" mkdir "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\pdf"'	
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.15

## Host

### Notes

Output Created		23-JUN-2026 00:11:23
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax	HOST COMMAND='cmd /c if not exist "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\sp v" mkdir "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\sp v"'.	
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.14

### Host

#### Notes

Output Created		23-JUN-2026 00:11:23
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
Syntax	HOST COMMAND='cmd /c if not exist "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\sa v" mkdir "D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\sa v"'.	
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.22

```
File "<string>", line 157
    ax.text(value + 0.002, idx, f"{value:.3f}", va="center", fontweight="bold"
)
                                                                    ^
SyntaxError: invalid syntax
```

## Partial Eta Squared - ANOVA Family

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

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

## Means

### Notes

Output Created		23-JUN-2026 00:11:27
Comments		
Input	Data	D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\sav\partial_eta_squared_spss_ready_data.sav
	Active Dataset	PartialEtaSquaredData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	For each dependent variable in a table, user-defined missing values for the dependent and all grouping variables are treated as missing.
	Cases Used	Cases used for each table have no missing values in any independent variable, and not all dependent variables have missing values.
Syntax		MEANS TABLES=G3 BY studytime /CELLS=COUNT MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.03

[PartialEtaSquaredData] D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS\_Output\sav\partial\_eta\_squared\_spss\_ready\_data.sav

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
G3 * studytime	649	100.0%	0	0.0%	649	100.0%

**Report**

G3

studytime	N	Mean	Std. Deviation	Minimum	Maximum
1	212	10.8443	3.21862	.00	18.00
2	305	12.0918	3.24313	.00	19.00
3	97	13.2268	2.50210	8.00	18.00
4	35	13.0571	3.03841	6.00	19.00
Total	649	11.9060	3.23066	.00	19.00

**Univariate Analysis of Variance**

**Notes**

Output Created	23-JUN-2026 00:11:27	
Comments		
Input	Data	D:\DATA ANALYSIS\IE ANOVA Family\Partial Eta Squared\SPSS_Output\sa\v\partial_eta_squared_sps_s_ready_data.sav
	Active Dataset	PartialEtaSquaredData
	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 for all variables in the model.

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Notes**

Syntax	UNIANOVA G3 BY school_id studytime /METHOD=SSTYPE(3) /INTERCEPT=INCLUDE /PRINT=DESCRIPTIVE ETASQ HOMOGENEITY PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=school_id studytime school_id*studytime.	
Resources	Processor Time	00:00:00.11
	Elapsed Time	00:00:00.95

**Between-Subjects Factors**

		Value Label	N
school_id	1	GP	423
	2	MS	226
studytime	1		212
	2		305
	3		97
	4		35

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Descriptive Statistics**

Dependent Variable: G3

school_id	studytime	Mean	Std. Deviation	N
1	1	11.5294	2.75504	119
	2	12.7330	2.45378	206
	3	13.5634	2.24074	71
	4	13.4074	2.80466	27
	Total	12.5768	2.62564	423
2	1	9.9677	3.55531	93
	2	10.7576	4.16764	99
	3	12.3077	2.96337	26
	4	11.8750	3.68152	8
	Total	10.6504	3.83399	226
Total	1	10.8443	3.21862	212
	2	12.0918	3.24313	305
	3	13.2268	2.50210	97
	4	13.0571	3.03841	35
	Total	11.9060	3.23066	649

**Levene's Test of Equality of Error Variances<sup>a,b</sup>**

		Levene Statistic	df1	df2	Sig.
G3	Based on Mean	3.420	7	641	.001
	Based on Median	3.304	7	641	.002
	Based on Median and with adjusted df	3.304	7	483.824	.002
	Based on trimmed mean	3.376	7	641	.002

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: G3

b. Design: Intercept + school\_id + studytime + school\_id \* studytime

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Tests of Between-Subjects Effects**

Dependent Variable: G3

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	897.822 <sup>a</sup>	7	128.260	14.017	.000
Intercept	37166.619	1	37166.619	4061.722	.000
school_id	160.873	1	160.873	17.581	.000
studytime	319.327	3	106.442	11.632	.000
school_id * studytime	9.982	3	3.327	.364	.779
Error	5865.444	641	9.150		
Total	98761.000	649			
Corrected Total	6763.267	648			

**Tests of Between-Subjects Effects**

Dependent Variable: G3

Source	Partial Eta Squared
Corrected Model	.133
Intercept	.864
school_id	.027
studytime	.052
school_id * studytime	.002
Error	
Total	
Corrected Total	

a. R Squared = .133 (Adjusted R Squared = .123)

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Parameter Estimates**

Dependent Variable: G3

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	11.875	1.069	11.103	.000	9.775	13.975
[school_id=1]	1.532	1.218	1.258	.209	-.859	3.924
[school_id=2]	0 <sup>a</sup>	.	.	.	.	.
[studytime=1]	-1.907	1.115	-1.711	.088	-4.096	.281
[studytime=2]	-1.117	1.112	-1.005	.315	-3.301	1.066
[studytime=3]	.433	1.223	.354	.724	-1.969	2.834
[studytime=4]	0 <sup>a</sup>	.	.	.	.	.
[school_id=1] * [studytime=1]	.029	1.288	.023	.982	-2.499	2.558
[school_id=1] * [studytime=2]	.443	1.273	.348	.728	-2.056	2.942
[school_id=1] * [studytime=3]	-.277	1.401	-.197	.844	-3.028	2.475
[school_id=1] * [studytime=4]	0 <sup>a</sup>	.	.	.	.	.
[school_id=2] * [studytime=1]	0 <sup>a</sup>	.	.	.	.	.
[school_id=2] * [studytime=2]	0 <sup>a</sup>	.	.	.	.	.
[school_id=2] * [studytime=3]	0 <sup>a</sup>	.	.	.	.	.
[school_id=2] * [studytime=4]	0 <sup>a</sup>	.	.	.	.	.

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Parameter Estimates**

Dependent Variable: G3

Parameter	Partial Eta Squared
Intercept	.161
[school_id=1]	.002
[school_id=2]	.
[studytime=1]	.005
[studytime=2]	.002
[studytime=3]	.000
[studytime=4]	.
[school_id=1] * [studytime=1]	.000
[school_id=1] * [studytime=2]	.000
[school_id=1] * [studytime=3]	.000
[school_id=1] * [studytime=4]	.
[school_id=2] * [studytime=1]	.
[school_id=2] * [studytime=2]	.
[school_id=2] * [studytime=3]	.
[school_id=2] * [studytime=4]	.

a. This parameter is set to zero because it is redundant.

**Oneway**

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Notes**

Output Created		23-JUN-2026 00:11:28
Comments		
Input	Data	D:\DATA ANALYSIS\ANOVA Family\Partial Eta Squared\SPSS_Output\save\partial_eta_squared_sps_ready_data.sav
	Active Dataset	PartialEtaSquaredData
	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.
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.20

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

**Descriptives**

G3

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
1	212	10.8443	3.21862	.22106	10.4086	11.2801	.00
2	305	12.0918	3.24313	.18570	11.7264	12.4572	.00
3	97	13.2268	2.50210	.25405	12.7225	13.7311	8.00
4	35	13.0571	3.03841	.51358	12.0134	14.1009	6.00
Total	649	11.9060	3.23066	.12681	11.6570	12.1550	.00

**Descriptives**

G3

	Maximum
1	18.00
2	19.00
3	18.00
4	19.00
Total	19.00

**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

Partial Eta Squared - ANOVA Family  
 Model: G3 by school and studytime; SPSS GLM prints Partial E

### 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			

### Graph

#### Notes

Output Created		23-JUN-2026 00:11:29
Comments		
Input	Data	D:\DATA ANALYSIS\E ANOVA Family\Partial Eta Squared\SPSS_Output\sav\partial_eta_squared_sps_ready_data.sav
	Active Dataset	PartialEtaSquaredData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		GRAPH /LINE(MULTIPLE) =MEAN(G3) BY studytime BY school_id.
Resources	Processor Time	00:00:04.06
	Elapsed Time	00:00:02.41

Partial Eta Squared - ANOVA Family  
Model: G3 by school and studytime; SPSS GLM prints Partial E

