

```
841 0 OUTPUT ACTIVATE KrippendorffsAlphaOutput.  
841 0 M> OUTPUT ACTIVATE KrippendorffsAlphaOutput.  
842 0 TITLE 'Krippendorff's Nominal Alpha'.  
842 0 M> TITLE 'Krippendorff's Nominal Alpha'.
```

Krippendorff's Nominal Alpha

```

843 0
843 0 M>
844 0 GET DATA
844 0 M> GET DATA
845 0 /TYPE=TXT
845 0 M> /TYPE=TXT
846 0 /FILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\Krippendorffs Alpha\dataset.csv'
846 0 M> /FILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\Krippendorffs Alpha\dataset.csv'
847 0 /ENCODING='UTF8'
847 0 M> /ENCODING='UTF8'
848 0 /DELCASE=LINE
848 0 M> /DELCASE=LINE
849 0 /DELIMITERS=', '
849 0 M> /DELIMITERS=', '
850 0 /QUALIFIER='''
850 0 M> /QUALIFIER='''
851 0 /ARRANGEMENT=DELIMITED
851 0 M> /ARRANGEMENT=DELIMITED
852 0 /FIRSTCASE=2
852 0 M> /FIRSTCASE=2
853 0 /VARIABLES=
853 0 M> /VARIABLES=
854 0 school A8 sex A8 age F8.0 address A8 famsize A8 Pstatus A8
854 0 M> school A8 sex A8 age F8.0 address A8 famsize A8 Pstatus A8
855 0 Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16 guardian A16
855 0 M> Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16 guardian A16
856 0 traveltime F8.0 studytime F8.0 failures F8.0 schoolsup A8 famsup
A8
856 0 M> traveltime F8.0 studytime F8.0 failures F8.0 schoolsup A8 famsup
up A8
857 0 paid A8 activities A8 nursery A8 higher A8 internet A8 romantic A
8
857 0 M> paid A8 activities A8 nursery A8 higher A8 internet A8 romanti
c A8
858 0 famrel F8.0 freetime F8.0 goout F8.0 Dalc F8.0 Walc F8.0 health F
8.0

```

Krippendorff's Nominal Alpha

```

858 0 M>      famrel F8.0 freetime F8.0 goout F8.0 Dalc F8.0 Walc F8.0 health F8.0
859 0      absences F8.0 G1 F8.0 G2 F8.0 G3 F8.0.
859 0 M>      absences F8.0 G1 F8.0 G2 F8.0 G3 F8.0.
860 0 DATASET NAME KrippendorffsAlphaData.
860 0 M> DATASET NAME KrippendorffsAlphaData.
861 0 EXECUTE.
861 0 M> EXECUTE.
862 0
862 0 M>
863 0 COMPUTE subject_id=$CASENUM.
863 0 M> COMPUTE subject_id=$CASENUM.
864 0 COMPUTE Dalc_R=6-Dalc.
864 0 M> COMPUTE Dalc_R=6-Dalc.
865 0 COMPUTE Walc_R=6-Walc.
865 0 M> COMPUTE Walc_R=6-Walc.
866 0 RECODE schoolsup famsup paid activities higher internet ('no'=0) ('yes'=1)
866 0 M> RECODE schoolsup famsup paid activities higher internet ('no'=0) ('yes'=1)
867 0 INTO schoolsup_b famsup_b paid_b activities_b higher_b internet_b.
867 0 M> INTO schoolsup_b famsup_b paid_b activities_b higher_b internet_b.
868 0 RECODE G1 G2 G3 (LO THRU 9=1) (10 THRU 13=2) (14 THRU HI=3)
868 0 M> RECODE G1 G2 G3 (LO THRU 9=1) (10 THRU 13=2) (14 THRU HI=3)
869 0 INTO G1_cat3 G2_cat3 G3_cat3.
869 0 M> INTO G1_cat3 G2_cat3 G3_cat3.
870 0 RECODE G1 G3 (LO THRU 8=1) (9 THRU 10=2) (11 THRU 12=3) (13 THRU 14=4) (15 THRU HI=5)
870 0 M> RECODE G1 G3 (LO THRU 8=1) (9 THRU 10=2) (11 THRU 12=3) (13 THRU 14=4) (15 THRU HI=5)
871 0 INTO G1_cat5 G3_cat5.
871 0 M> INTO G1_cat5 G3_cat5.
872 0 VARIABLE LEVEL schoolsup_b famsup_b paid_b activities_b higher_b internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5 (NOMINAL).
872 0 M> VARIABLE LEVEL schoolsup_b famsup_b paid_b activities_b higher_b internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5 (NOMINAL).

```

Krippendorff's Nominal Alpha

```
873 0 FORMATS subject_id schoolsup_b famsup_b paid_b activities_b higher_b
internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5 (F5
      .0).
873 0 M> FORMATS subject_id schoolsup_b famsup_b paid_b activities_b higher
_b internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5
      (F5.0).
874 0 EXECUTE.
874 0 M> EXECUTE.
875 0
875 0 M>
876 0 * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
876 0 M> * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
877 0 TITLE 'Krippendorffs Alpha Nominal'.
877 0 M> TITLE 'Krippendorffs Alpha Nominal'.
```

Krippendorffs Alpha Nominal

```
878 0 SUBTITLE 'Coincidence disagreement across three categorical raters'.  
878 0 M> SUBTITLE 'Coincidence disagreement across three categorical raters  
'.
```

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

```

879  0  COMPUTE ka_d12=(G1_cat3<>G2_cat3).
879  0 M>  COMPUTE ka_d12=(G1_cat3<>G2_cat3).
880  0  COMPUTE ka_d13=(G1_cat3<>G3_cat3).
880  0 M>  COMPUTE ka_d13=(G1_cat3<>G3_cat3).
881  0  COMPUTE ka_d23=(G2_cat3<>G3_cat3).
881  0 M>  COMPUTE ka_d23=(G2_cat3<>G3_cat3).
882  0  COMPUTE ka_subject_disagreement=(ka_d12+ka_d13+ka_d23)/3.
882  0 M>  COMPUTE ka_subject_disagreement=(ka_d12+ka_d13+ka_d23)/3.
883  0  FREQUENCIES VARIABLES=G1_cat3 G2_cat3 G3_cat3 ka_subject_disagreement
/STATISTICS=MEAN STDDEV /HISTOGRAM.
883  0 M>  FREQUENCIES VARIABLES=G1_cat3 G2_cat3 G3_cat3 ka_subject_disagreement
/STATISTICS=MEAN STDDEV /HISTOGRAM.

```

Frequencies

Notes

Output Created		16-JUL-2026 21:09:48
Comments		
Input	Data	D:\DATA ANALYSIS\K Reliability and Agreement Tests\Krippendorffs Alpha\dataset.csv
	Active Dataset	KrippendorffsAlphaData
	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.
Syntax		FREQUENCIES VARIABLES=G1_cat3 G2_cat3 G3_cat3 ka_subject_disagreement /STATISTICS=MEAN STDDEV /HISTOGRAM.

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

Notes

Resources	Processor Time	00:00:01.37
	Elapsed Time	00:00:01.24

[KrippendorffsAlphaData]

Statistics

		G1_cat3	G2_cat3	G3_cat3	ka_subject_dis agreement
N	Valid	649	649	649	649
	Missing	0	0	0	0
Mean		1.99	2.01	2.14	.2157
Std. Deviation		.691	.677	.658	.31213

Frequency Table

G1_cat3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	157	24.2	24.2	24.2
	2	340	52.4	52.4	76.6
	3	152	23.4	23.4	100.0
	Total	649	100.0	100.0	

G2_cat3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	145	22.3	22.3	22.3
	2	352	54.2	54.2	76.6
	3	152	23.4	23.4	100.0
	Total	649	100.0	100.0	

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

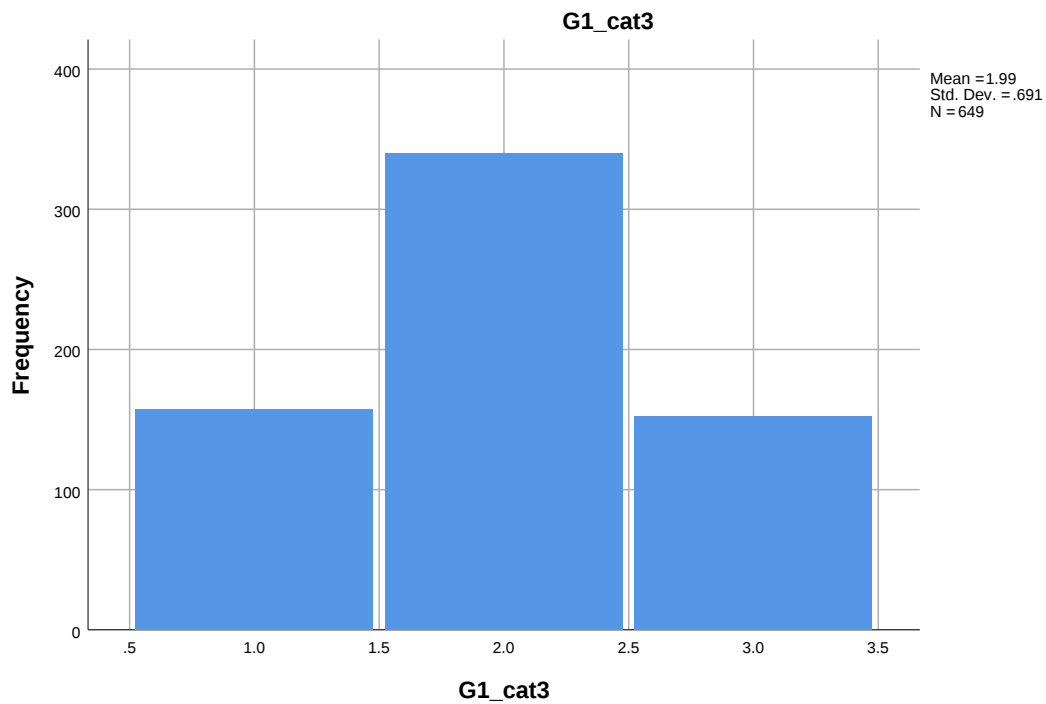
G3_cat3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	100	15.4	15.4	15.4
	2	355	54.7	54.7	70.1
	3	194	29.9	29.9	100.0
	Total	649	100.0	100.0	

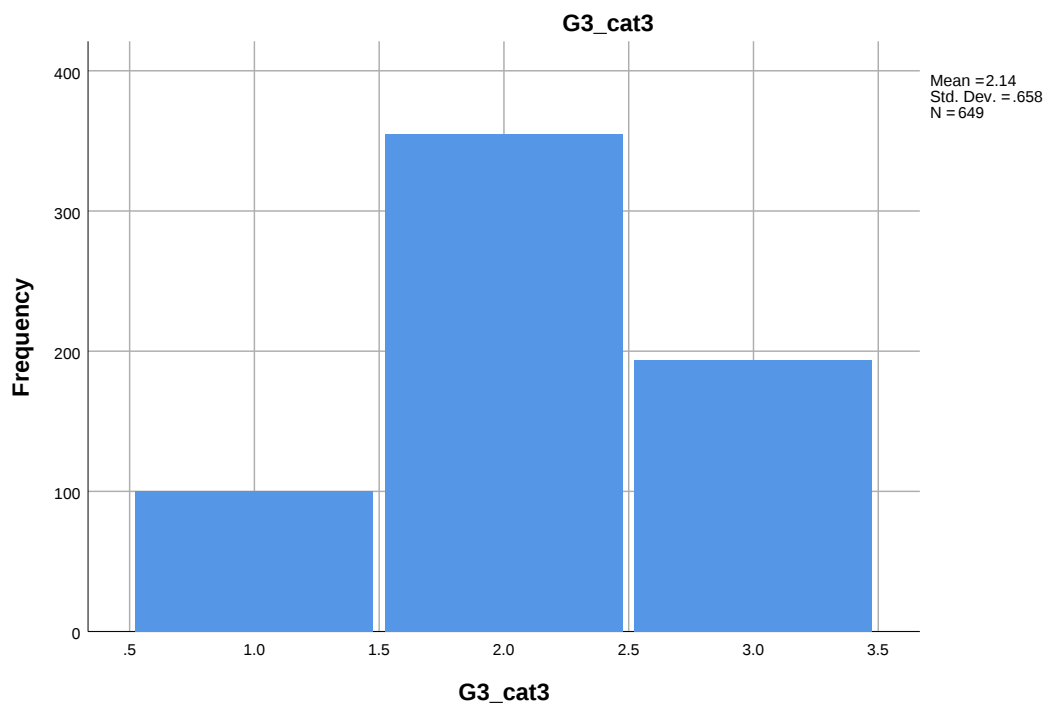
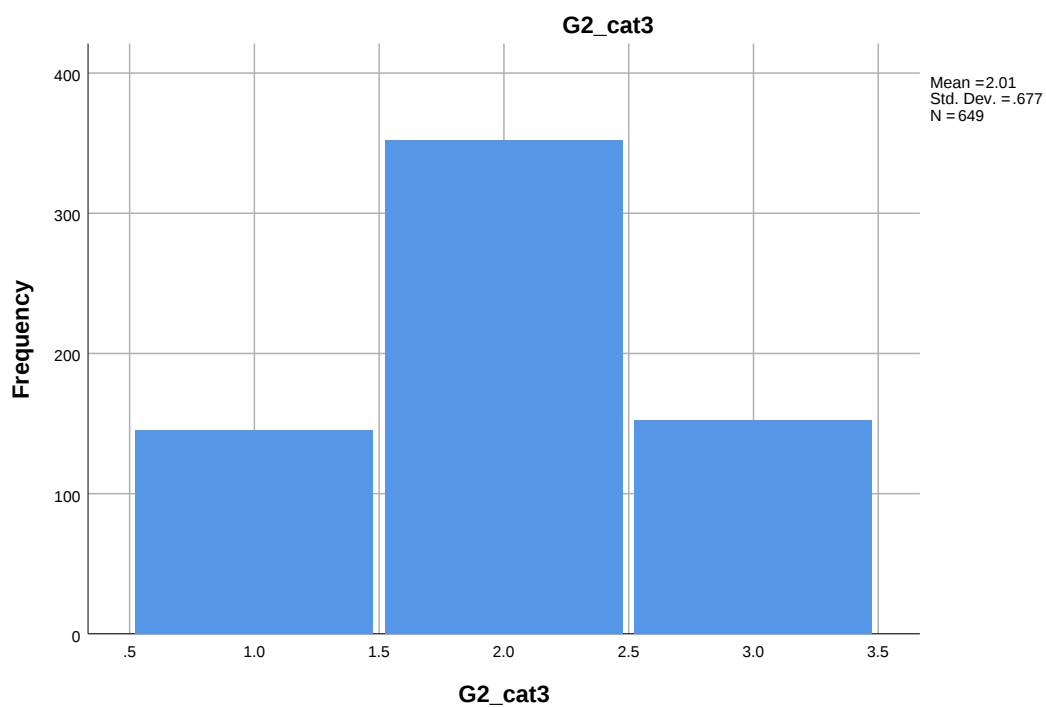
ka_subject_disagreement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	439	67.6	67.6	67.6
	.67	210	32.4	32.4	100.0
	Total	649	100.0	100.0	

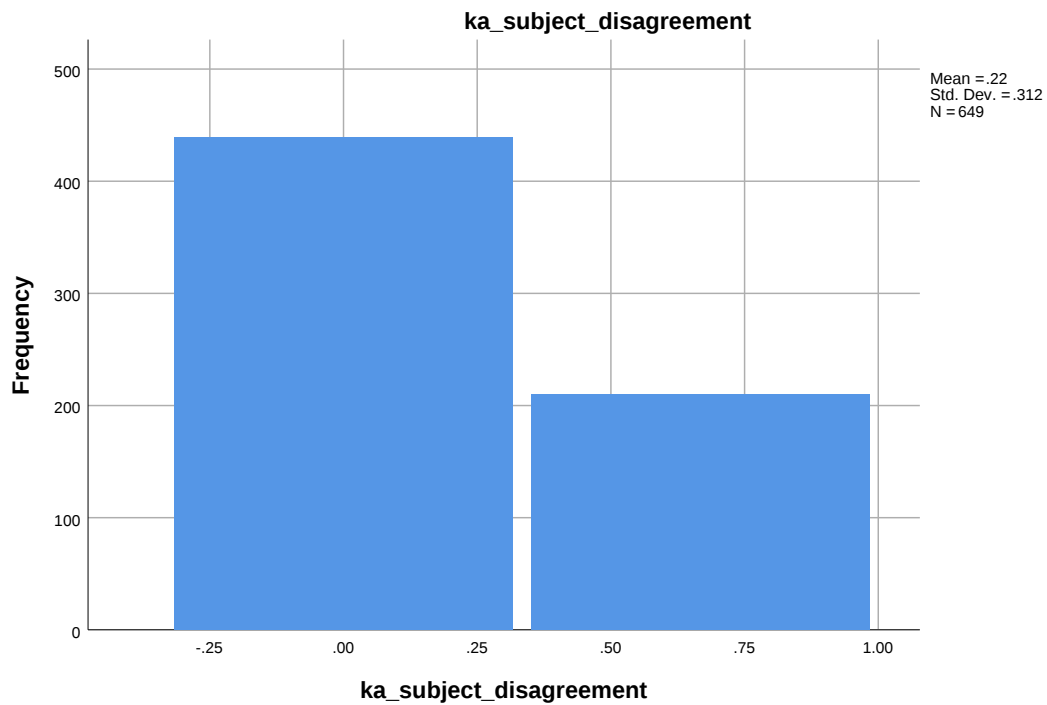
Histogram



Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters



Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters



```
884 0 CROSSTABS /TABLES=G1_cat3 BY G2_cat3 /STATISTICS=KAPPA /CELLS=COUNT ROW COLUMN.
```

```
884 0 M> CROSSTABS /TABLES=G1_cat3 BY G2_cat3 /STATISTICS=KAPPA /CELLS=COUNT ROW COLUMN.
```

Crosstabs

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

Notes

Output Created		16-JUL-2026 21:09:50
Comments		
Input	Data	D:\DATA ANALYSIS\K Reliability and Agreement Tests\Krippendorffs Alpha\dataset.csv
	Active Dataset	KrippendorffsAlphaData
	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 table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=G1_cat3 BY G2_cat3 /STATISTICS=KAPPA /CELLS=COUNT ROW COLUMN.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.04
	Dimensions Requested	2
	Cells Available	524245

Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
G1_cat3 * G2_cat3	649	100.0%	0	0.0%	649	100.0%

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

G1_cat3 * G2_cat3 Crosstabulation

			G2_cat3			
			1	2	3	Total
G1_cat3	1	Count	107	50	0	157
		% within G1_cat3	68.2%	31.8%	0.0%	100.0%
		% within G2_cat3	73.8%	14.2%	0.0%	24.2%
	2	Count	38	274	28	340
		% within G1_cat3	11.2%	80.6%	8.2%	100.0%
		% within G2_cat3	26.2%	77.8%	18.4%	52.4%
	3	Count	0	28	124	152
		% within G1_cat3	0.0%	18.4%	81.6%	100.0%
		% within G2_cat3	0.0%	8.0%	81.6%	23.4%
Total	Count	145	352	152	649	
	% within G1_cat3	22.3%	54.2%	23.4%	100.0%	
	% within G2_cat3	100.0%	100.0%	100.0%	100.0%	

Symmetric Measures

		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Measure of Agreement	Kappa	.634	.027	22.289	.000
N of Valid Cases		649			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

```
885  0  CROSSTABS /TABLES=G1_cat3 BY G3_cat3 /STATISTICS=KAPPA /CELLS=COUNT ROW COLUMN.
```

```
885  0  M> CROSSTABS /TABLES=G1_cat3 BY G3_cat3 /STATISTICS=KAPPA /CELLS=COUNT ROW COLUMN.
```

Crosstabs

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

Notes

Output Created		16-JUL-2026 21:09:50
Comments		
Input	Data	D:\DATA ANALYSIS\K Reliability and Agreement Tests\Krippendorffs Alpha\dataset.csv
	Active Dataset	KrippendorffsAlphaData
	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 table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=G1_cat3 BY G3_cat3 /STATISTICS=KAPPA /CELLS=COUNT ROW COLUMN.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.06
	Dimensions Requested	2
	Cells Available	524245

Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
G1_cat3 * G3_cat3	649	100.0%	0	0.0%	649	100.0%

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

G1_cat3 * G3_cat3 Crosstabulation

			G3_cat3			
			1	2	3	Total
G1_cat3	1	Count	88	69	0	157
		% within G1_cat3	56.1%	43.9%	0.0%	100.0%
		% within G3_cat3	88.0%	19.4%	0.0%	24.2%
	2	Count	12	267	61	340
		% within G1_cat3	3.5%	78.5%	17.9%	100.0%
		% within G3_cat3	12.0%	75.2%	31.4%	52.4%
	3	Count	0	19	133	152
		% within G1_cat3	0.0%	12.5%	87.5%	100.0%
		% within G3_cat3	0.0%	5.4%	68.6%	23.4%
Total	Count	100	355	194	649	
	% within G1_cat3	15.4%	54.7%	29.9%	100.0%	
	% within G3_cat3	100.0%	100.0%	100.0%	100.0%	

Symmetric Measures

		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Measure of Agreement	Kappa	.591	.028	20.928	.000
N of Valid Cases		649			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

```
886 0 DESCRIPTIVES VARIABLES=ka_subject_disagreement /STATISTICS=MEAN STDDEV MIN MAX.
```

```
886 0 M> DESCRIPTIVES VARIABLES=ka_subject_disagreement /STATISTICS=MEAN STDDEV MIN MAX.
```

Descriptives

Krippendorffs Alpha Nominal

Coincidence disagreement across three categorical raters

Notes

Output Created		16-JUL-2026 21:09:50
Comments		
Input	Data	D:\DATA ANALYSIS\K Reliability and Agreement Tests\Krippendorffs Alpha\dataset.csv
	Active Dataset	KrippendorffsAlphaData
	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=ka_subject_disagreement /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.04

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ka_subject_disagreement	649	.00	.67	.2157	.31213
Valid N (listwise)	649				

```

887 0 * END METHOD-SPECIFIC SPSS WORKFLOW.
887 0 M> * END METHOD-SPECIFIC SPSS WORKFLOW.
888 0
888 0 M>
889 0 SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\Krip
pendorffs Alpha\SPSS_Output\sav\krippendorffs-alpha_sp
ss_ready_data.sav' /COMPRESSED.

```

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

```

889  0 M>  SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\K
rippendorffs Alpha\SPSS_Output\sav\rippendorffs-alpha
        _spss_ready_data.sav' /COMPRESSED.

890  0
890  0 M>
891  0 ECHO '=====
====='.
891  0 M>  ECHO '=====
====='.
=====
892  0 ECHO 'KRIPPENDORFF'S NOMINAL ALPHA'.
892  0 M>  ECHO 'KRIPPENDORFF'S NOMINAL ALPHA'.
KRIPPENDORFF'S NOMINAL ALPHA
893  0 ECHO 'Design: Nominal agreement among the three categorized grade occ
asions using coincidence disagreement.'.
893  0 M>  ECHO 'Design: Nominal agreement among the three categorized grade
occasions using coincidence disagreement.'.
Design: Nominal agreement among the three categorized grade occasions using co
incidence disagreement.
894  0 ECHO 'Null hypothesis: Observed nominal disagreement equals disagree
ment expected from pooled category values.'.
894  0 M>  ECHO 'Null hypothesis: Observed nominal disagreement equals disagr
eement expected from pooled category values.'.
Null hypothesis: Observed nominal disagreement equals disagreement expected fr
om pooled category values.
895  0 ECHO 'Formula:  $\alpha_K = 1 - D_o / D_e$ .'.
895  0 M>  ECHO 'Formula:  $\alpha_K = 1 - D_o / D_e$ .'.
Formula:  $\alpha_K = 1 - D_o / D_e$ .
896  0 ECHO 'Variables: categorized G1, categorized G2, categorized G3'.
896  0 M>  ECHO 'Variables: categorized G1, categorized G2, categorized G3'.
Variables: categorized G1, categorized G2, categorized G3
897  0 ECHO 'Rows analyzed: 649'.
897  0 M>  ECHO 'Rows analyzed: 649'.
Rows analyzed: 649
898  0 ECHO 'expected_disagreement = 0.603081347380823'.
898  0 M>  ECHO 'expected_disagreement = 0.603081347380823'.
expected_disagreement = 0.603081347380823
899  0 ECHO 'rippendorff_alpha = 0.6423094697924543'.
899  0 M>  ECHO 'rippendorff_alpha = 0.6423094697924543'.

```

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

```
krippendorff_alpha = 0.6423094697924543
900 0 ECHO 'observed_disagreement = 0.21571648690292758'.
900 0 M> ECHO 'observed_disagreement = 0.21571648690292758'.
observed_disagreement = 0.21571648690292758
901 0 ECHO 'raters = 3'.
901 0 M> ECHO 'raters = 3'.
raters = 3
902 0 ECHO 'subjects = 649'.
902 0 M> ECHO 'subjects = 649'.
subjects = 649
903 0 ECHO 'expected_disagreement = 0.603081347380823'.
903 0 M> ECHO 'expected_disagreement = 0.603081347380823'.
expected_disagreement = 0.603081347380823
904 0 ECHO 'krippendorff_alpha = 0.6423094697924543'.
904 0 M> ECHO 'krippendorff_alpha = 0.6423094697924543'.
krippendorff_alpha = 0.6423094697924543
905 0 ECHO 'observed_disagreement = 0.21571648690292758'.
905 0 M> ECHO 'observed_disagreement = 0.21571648690292758'.
observed_disagreement = 0.21571648690292758
906 0 ECHO 'raters = 3'.
906 0 M> ECHO 'raters = 3'.
raters = 3
907 0 ECHO 'subjects = 649'.
907 0 M> ECHO 'subjects = 649'.
subjects = 649
908 0 ECHO 'Cross-check status: pass'.
908 0 M> ECHO 'Cross-check status: pass'.
Cross-check status: pass
909 0 ECHO '=====
====='.
909 0 M> ECHO '=====
====='.
=====
910 0
910 0 M>
911 0 OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement Tes
ts\Krippendorffs Alpha\SPSS_Output\spv\krippendorffs-a
lpha_spss_output.spv'.
```

Krippendorffs Alpha Nominal
Coincidence disagreement across three categorical raters

```
911  0 M> OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement
Tests\Krippendorffs Alpha\SPSS_Output\spv\krippendorff
      s-alpha_spss_output.spv'.
912  0 OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=PRI
NTSETTING
912  0 M> OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=
PRINTSETTING
```