

```

>Warning # 853 in column 23.  Text: pt_PT
>The LOCALE subcommand of the SET command specifies a locale
>for which collation and translation are not available.
NEW FILE.
DATASET NAME DataSet1 WINDOW=FRONT.
EXAMINE VARIABLES=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 f
emale male other
/PLOT BOXPLOT STEMLEAF NPLOT
/COMPARE GROUPS
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.

```

Explore

Notes

Output Created		03-OCT-2016 00:38:04
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	83
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=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 female male other /PLOT BOXPLOT STEMLEAF NPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:03,02
	Elapsed Time	00:00:03,00

[DataSet1]

Warnings

Lab is constant. It will be included in any boxplots produced but other output will be omitted.

Online is constant. It will be included in any boxplots produced but other output will be omitted.

age20 is constant. It will be included in any boxplots produced but other output will be omitted.

age20_29 is constant. It will be included in any boxplots produced but other output will be omitted.

age30_39 is constant. It will be included in any boxplots produced but other output will be omitted.

age40_49 is constant. It will be included in any boxplots produced but other output will be omitted.

age50_59 is constant. It will be included in any boxplots produced but other output will be omitted.

age60 is constant. It will be included in any boxplots produced but other output will be omitted.

female is constant. It will be included in any boxplots produced but other output will be omitted.

male is constant. It will be included in any boxplots produced but other output will be omitted.

other is constant. It will be included in any boxplots produced but other output will be omitted.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Lab	1	1,2%	82	98,8%	83	100,0%
Online	1	1,2%	82	98,8%	83	100,0%
age20	1	1,2%	82	98,8%	83	100,0%
age20_29	1	1,2%	82	98,8%	83	100,0%
age30_39	1	1,2%	82	98,8%	83	100,0%
age40_49	1	1,2%	82	98,8%	83	100,0%
age50_59	1	1,2%	82	98,8%	83	100,0%
age60	1	1,2%	82	98,8%	83	100,0%
female	1	1,2%	82	98,8%	83	100,0%
male	1	1,2%	82	98,8%	83	100,0%
other	1	1,2%	82	98,8%	83	100,0%

Descriptives^a,
b,c,d,e,f,g,h,i,j,k

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- a. Lab is constant. It has been omitted.
- b. Online is constant. It has been omitted.
- c. age20 is constant. It has been omitted.
- d. age20_29 is constant. It has been omitted.
- e. age30_39 is constant. It has been omitted.
- f. age40_49 is constant. It has been omitted.
- g. age50_59 is constant. It has been omitted.
- h. age60 is constant. It has been omitted.
- i. female is constant. It has been omitted.
- j. male is constant. It has been omitted.
- k. other is constant. It has been omitted.

Tests of
normality_{a,b,c,d,e,f,g,}
h,i,j,k

--	--

- a. Lab is constant. It has been omitted.
- b. Online is constant. It has been omitted.
- c. age20 is constant. It has been omitted.
- d. age20_29 is constant. It has been omitted.
- e. age30_39 is constant. It has been omitted.
- f. age40_49 is constant. It has been omitted.
- g. age50_59 is constant. It has been omitted.
- h. age60 is constant. It has been omitted.
- i. female is constant. It has been omitted.
- j. male is constant. It has been omitted.
- k. other is constant. It has been omitted.

```
FREQUENCIES VARIABLES=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age  
60 female male other  
  /STATISTICS=RANGE MINIMUM MAXIMUM MODE  
  /FORMAT=LIMIT(50)  
  /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 00:38:48
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	83
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=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 female male other /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online	age20	age20_29	age30_39	age40_49	age50_59
N	Valid	19	53	20	83	12	11	83
	Missing	64	30	63	0	71	72	0
Mode		5,00	5,00	5,00	5,00	3,00	5,00	5,00
Range		3,00	4,00	4,00	4,00	4,00	4,00	4,00
Minimum		2,00	1,00	1,00	1,00	1,00	1,00	1,00
Maximum		5,00	5,00	5,00	5,00	5,00	5,00	5,00

Statistics

		age60	female	male	other
N	Valid	5	67	71	1
	Missing	78	16	12	82
Mode		5,00	5,00	5	5,00
Range		3,00	4,00	4	,00
Minimum		2,00	1,00	1	5,00
Maximum		5,00	5,00	5	5,00

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2,00	5	6,0	26,3	26,3
	3,00	4	4,8	21,1	47,4
	4,00	4	4,8	21,1	68,4
	5,00	6	7,2	31,6	100,0
	Total	19	22,9	100,0	
Missing	System	64	77,1		
Total		83	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	8	9,6	15,1	15,1
	2,00	3	3,6	5,7	20,8
	3,00	8	9,6	15,1	35,8
	4,00	11	13,3	20,8	56,6
	5,00	23	27,7	43,4	100,0
	Total	53	63,9	100,0	
Missing	System	30	36,1		
Total		83	100,0		

age20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	2	2,4	10,0	10,0
	2,00	2	2,4	10,0	20,0
	3,00	4	4,8	20,0	40,0
	4,00	4	4,8	20,0	60,0
	5,00	8	9,6	40,0	100,0
	Total	20	24,1	100,0	
Missing	System	63	75,9		
Total		83	100,0		

age20_29

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	8	9,6	9,6	9,6
	2,00	5	6,0	6,0	15,7
	3,00	20	24,1	24,1	39,8
	4,00	14	16,9	16,9	56,6
	5,00	36	43,4	43,4	100,0
	Total	83	100,0	100,0	

age30_39

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	2	2,4	16,7	16,7
	2,00	2	2,4	16,7	33,3
	3,00	4	4,8	33,3	66,7
	4,00	1	1,2	8,3	75,0
	5,00	3	3,6	25,0	100,0
	Total	12	14,5	100,0	
Missing	System	71	85,5		
Total		83	100,0		

age40_49

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	1	1,2	9,1	9,1
	2,00	2	2,4	18,2	27,3
	3,00	2	2,4	18,2	45,5
	4,00	2	2,4	18,2	63,6
	5,00	4	4,8	36,4	100,0
	Total	11	13,3	100,0	
Missing	System	72	86,7		
Total		83	100,0		

age50_59

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	8	9,6	9,6	9,6
	2,00	5	6,0	6,0	15,7
	3,00	20	24,1	24,1	39,8
	4,00	14	16,9	16,9	56,6
	5,00	36	43,4	43,4	100,0
	Total	83	100,0	100,0	

age60

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2,00	1	1,2	20,0	20,0
	3,00	1	1,2	20,0	40,0
	5,00	3	3,6	60,0	100,0
	Total	5	6,0	100,0	
Missing	System	78	94,0		
Total		83	100,0		

female

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	7	8,4	10,4	10,4
	2,00	8	9,6	11,9	22,4
	3,00	18	21,7	26,9	49,3
	4,00	13	15,7	19,4	68,7
	5,00	21	25,3	31,3	100,0
	Total	67	80,7	100,0	
Missing	System	16	19,3		
Total		83	100,0		

male

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	9,6	11,3	11,3
	2	5	6,0	7,0	18,3
	3	14	16,9	19,7	38,0
	4	12	14,5	16,9	54,9
	5	32	38,6	45,1	100,0
	Total	71	85,5	100,0	
Missing	System	12	14,5		
Total		83	100,0		

other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5,00	1	1,2	100,0	100,0
Missing	System	82	98,8		
Total		83	100,0		

DESCRIPTIVES VARIABLES=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 female male other

/STATISTICS=MEAN STDDEV VARIANCE RANGE MIN MAX.

Descriptives

Notes

Output Created		03-OCT-2016 00:39:48
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	83
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=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 female male other /STATISTICS=MEAN STDDEV VARIANCE RANGE MIN MAX.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Lab	19	3,00	2,00	5,00	3,5789	1,21636
Online	53	4,00	1,00	5,00	3,7170	1,45942
age20	20	4,00	1,00	5,00	3,7000	1,38031
age20_29	83	4,00	1,00	5,00	3,7831	1,32562
age30_39	12	4,00	1,00	5,00	3,0833	1,44338
age40_49	11	4,00	1,00	5,00	3,5455	1,43970
age50_59	83	4,00	1,00	5,00	3,7831	1,32562
age60	5	3,00	2,00	5,00	4,0000	1,41421
female	67	4,00	1,00	5,00	3,4925	1,32999
male	71	4	1	5	3,77	1,386
other	1	,00	5,00	5,00	5,0000	.
Valid N (listwise)	1					

Descriptive Statistics

	Variance
Lab	1,480
Online	2,130
age20	1,905
age20_29	1,757
age30_39	2,083
age40_49	2,073
age50_59	1,757
age60	2,000
female	1,769
male	1,920
other	.
Valid N (listwise)	

```
FREQUENCIES VARIABLES=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age
60 female male other
  /STATISTICS=RANGE MINIMUM MAXIMUM MODE
  /FORMAT=LIMIT(50)
  /ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 00:50:36
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	82
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=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 female male other /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online	age20	age20_29	age30_39	age40_49	age50_59
N	Valid	15	63	18	82	13	13	82
	Missing	67	19	64	0	69	69	0
Mode		3	3	5	3	3	3	3
Range		4	4	4	4	4	4	4
Minimum		1	1	1	1	1	1	1
Maximum		5	5	5	5	5	5	5

Statistics

		age60	female	male	other
N	Valid	6	66	72	2
	Missing	76	16	10	80
Mode		5	3	3	4 ^a
Range		3	4	4	1
Minimum		2	1	1	4
Maximum		5	5	5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	3,7	20,0	20,0
	2	1	1,2	6,7	26,7
	3	5	6,1	33,3	60,0
	4	3	3,7	20,0	80,0
	5	3	3,7	20,0	100,0
	Total	15	18,3	100,0	
Missing	System	67	81,7		
Total		82	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	11,0	14,3	14,3
	2	6	7,3	9,5	23,8
	3	25	30,5	39,7	63,5
	4	11	13,4	17,5	81,0
	5	12	14,6	19,0	100,0
	Total	63	76,8	100,0	
Missing	System	19	23,2		
Total		82	100,0		

age20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	2,4	11,1	11,1
	2	2	2,4	11,1	22,2
	3	4	4,9	22,2	44,4
	4	4	4,9	22,2	66,7
	5	6	7,3	33,3	100,0
	Total	18	22,0	100,0	
Missing	System	64	78,0		
Total		82	100,0		

age20_29

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	11,0	11,0	11,0
	2	12	14,6	14,6	25,6
	3	28	34,1	34,1	59,8
	4	16	19,5	19,5	79,3
	5	17	20,7	20,7	100,0
	Total	82	100,0	100,0	

age30_39

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	2,4	15,4	15,4
	3	7	8,5	53,8	69,2
	4	2	2,4	15,4	84,6
	5	2	2,4	15,4	100,0
	Total	13	15,9	100,0	
Missing	System	69	84,1		
Total		82	100,0		

age40_49

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	3,7	23,1	23,1
	2	1	1,2	7,7	30,8
	3	6	7,3	46,2	76,9
	4	1	1,2	7,7	84,6
	5	2	2,4	15,4	100,0
	Total	13	15,9	100,0	
Missing	System	69	84,1		
Total		82	100,0		

age50_59

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	11,0	11,0	11,0
	2	12	14,6	14,6	25,6
	3	28	34,1	34,1	59,8
	4	16	19,5	19,5	79,3
	5	17	20,7	20,7	100,0
	Total	82	100,0	100,0	

age60

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1,2	16,7	16,7
	3	1	1,2	16,7	33,3
	5	4	4,9	66,7	100,0
	Total	6	7,3	100,0	
Missing	System	76	92,7		
Total		82	100,0		

female

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	9	11,0	13,6	13,6
2	11	13,4	16,7	30,3
3	26	31,7	39,4	69,7
4	8	9,8	12,1	81,8
5	12	14,6	18,2	100,0
Total	66	80,5	100,0	
Missing System	16	19,5		
Total	82	100,0		

male

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	10	12,2	13,9	13,9
2	6	7,3	8,3	22,2
3	23	28,0	31,9	54,2
4	15	18,3	20,8	75,0
5	18	22,0	25,0	100,0
Total	72	87,8	100,0	
Missing System	10	12,2		
Total	82	100,0		

other

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 4	1	1,2	50,0	50,0
5	1	1,2	50,0	100,0
Total	2	2,4	100,0	
Missing System	80	97,6		
Total	82	100,0		

DESCRIPTIVES VARIABLES=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 female male other
/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

Output Created		03-OCT-2016 00:52:10
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	82
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=Lab Online age20 age20_29 age30_39 age40_49 age50_59 age60 female male other /STATISTICS=MEAN STDDEV VARIANCE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Lab	15	3,13	1,407	1,981
Online	63	3,17	1,264	1,598
age20	18	3,56	1,381	1,908
age20_29	82	3,24	1,253	1,569
age30_39	13	3,15	1,214	1,474
age40_49	13	2,85	1,345	1,808
age50_59	82	3,24	1,253	1,569
age60	6	4,17	1,329	1,767
female	66	3,05	1,258	1,583
male	72	3,35	1,323	1,751
other	2	4,50	,707	,500
Valid N (listwise)	2			

```

FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.

```

Frequencies

Notes

Output Created		03-OCT-2016 00:55:49
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	22	71
	Missing	49	0
Mode		4 ^a	3 ^a
Range		4	4
Minimum		1	1
Maximum		5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,4	4,5	4,5
	2	1	1,4	4,5	9,1
	3	4	5,6	18,2	27,3
	4	8	11,3	36,4	63,6
	5	8	11,3	36,4	100,0
Total		22	31,0	100,0	
Missing	System	49	69,0		
Total		71	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	2	2,8	2,8	2,8
2	4	5,6	5,6	8,5
3	23	32,4	32,4	40,8
4	19	26,8	26,8	67,6
5	23	32,4	32,4	100,0
Total	71	100,0	100,0	

DESCRIPTIVES VARIABLES=Lab Online
/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

Output Created		03-OCT-2016 00:56:31
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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=Lab Online /STATISTICS=MEAN STDDEV VARIANCE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Lab	22	3,95	1,090	1,188
Online	71	3,80	1,050	1,103
Valid N (listwise)	22			

NPAR TESTS
/FRIEDMAN=Lab Online
/STATISTICS DESCRIPTIVES
/MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 00:58:28
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,95	1,090	1	5
Online	22	4,00	,976	2	5

Friedman Test

Ranks

	Mean Rank
Lab	1,43
Online	1,57

Test Statistics^a

N	22
Chi-Square	,529
df	1
Asymp. Sig.	,467

a. Friedman Test

NPAR TESTS

/WILCOXON=Lab WITH Online (PAIRED)
 /STATISTICS DESCRIPTIVES
 /MISSING ANALYSIS.

NPar Tests

Notes

Output Created		03-OCT-2016 01:00:24
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,95	1,090	1	5
Online	71	3,80	1,050	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	7 ^a	11,21	78,50
	Positive Ranks	10 ^b	7,45	74,50
	Ties	5 ^c		
	Total	22		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,097 ^b
Asymp. Sig. (2-tailed)	,922

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:01:55
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	15	3,13	1,407	1	5
Online	15	3,13	1,598	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,47
Online	1,53

Test Statistics^a

N	15
Chi-Square	,111
df	1
Asymp. Sig.	,739

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:02:14
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	15	3,13	1,407	1	5
Online	63	3,17	1,264	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	4 ^a	5,75	23,00
	Positive Ranks	5 ^b	4,40	22,00
	Ties	6 ^c		
	Total	15		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,060 ^b
Asymp. Sig. (2-tailed)	,952

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:03:16
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	19	3,58	1,216	2	5
Online	19	3,63	1,342	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,47
Online	1,53

Test Statistics^a

N	19
Chi-Square	,067
df	1
Asymp. Sig.	,796

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:03:36
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	19	3,58	1,216	2	5
Online	53	3,72	1,459	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	7 ^a	8,21	57,50
	Positive Ranks	8 ^b	7,81	62,50
	Ties	4 ^c		
	Total	19		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,144 ^b
Asymp. Sig. (2-tailed)	,885

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
DESCRIPTIVES VARIABLES=Lab Online
/STATISTICS=MEAN STDDEV VARIANCE.
```

Descriptives

Notes

Output Created		03-OCT-2016 01:04:25
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	78
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=Lab Online /STATISTICS=MEAN STDDEV VARIANCE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Lab	21	3,38	,973	,948
Online	78	3,49	1,159	1,344
Valid N (listwise)	21			

```

FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.

```

Frequencies

Notes

Output Created		03-OCT-2016 01:04:31
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	78
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	21
	Missing	57
Mode	3 ^a	4
Range	4	4
Minimum	1	1
Maximum	5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,3	4,8	4,8
	2	2	2,6	9,5	14,3
	3	8	10,3	38,1	52,4
	4	8	10,3	38,1	90,5
	5	2	2,6	9,5	100,0
	Total	21	26,9	100,0	
Missing	System	57	73,1		
Total		78	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	7,7	7,7	7,7
	2	9	11,5	11,5	19,2
	3	19	24,4	24,4	43,6
	4	29	37,2	37,2	80,8
	5	15	19,2	19,2	100,0
	Total	78	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:05:10
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	78
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	21	3,38	,973	1	5
Online	21	3,48	1,250	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,45
Online	1,55

Test Statistics^a

N	21
Chi-Square	,286
df	1
Asymp. Sig.	,593

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:05:25
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	78
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	21	3,38	,973	1	5
Online	78	3,49	1,159	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	6 ^a	8,33	50,00
	Positive Ranks	8 ^b	6,88	55,00
	Ties	7 ^c		
	Total	21		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,161 ^b
Asymp. Sig. (2-tailed)	,872

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:06:16
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	67
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	18	67
	Missing	49	0
Mode		3	3
Range		3	4
Minimum		2	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	4,5	16,7	16,7
	3	9	13,4	50,0	66,7
	4	5	7,5	27,8	94,4
	5	1	1,5	5,6	100,0
	Total	18	26,9	100,0	
Missing	System	49	73,1		
Total		67	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	7	10,4	10,4	10,4
2	12	17,9	17,9	28,4
3	23	34,3	34,3	62,7
4	15	22,4	22,4	85,1
5	10	14,9	14,9	100,0
Total	67	100,0	100,0	

DESCRIPTIVES VARIABLES=Lab Online
/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

Output Created		03-OCT-2016 01:06:22
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	67
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=Lab Online /STATISTICS=MEAN STDDEV VARIANCE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Lab	18	3,22	,808	,654
Online	67	3,13	1,192	1,421
Valid N (listwise)	18			

NPAR TESTS
/FRIEDMAN=Lab Online
/STATISTICS DESCRIPTIVES
/MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 01:06:55
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	67
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	18	3,22	,808	2	5
Online	18	3,22	1,353	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,53
Online	1,47

Test Statistics^a

N	18
Chi-Square	,067
df	1
Asymp. Sig.	,796

a. Friedman Test

NPAR TESTS

/WILCOXON=Lab WITH Online (PAIRED)
 /STATISTICS DESCRIPTIVES
 /MISSING ANALYSIS.

NPar Tests

Notes

Output Created		03-OCT-2016 01:07:02
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	67
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	18	3,22	,808	2	5
Online	67	3,13	1,192	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	8 ^a	7,63	61,00
	Positive Ranks	7 ^b	8,43	59,00
	Ties	3 ^c		
	Total	18		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,058 ^b
Asymp. Sig. (2-tailed)	,953

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:08:13
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	73
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	22	73
	Missing	51	0
Mode		4	5
Range		4	4
Minimum		1	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,4	4,5	4,5
	2	1	1,4	4,5	9,1
	3	5	6,8	22,7	31,8
	4	8	11,0	36,4	68,2
	5	7	9,6	31,8	100,0
	Total	22	30,1	100,0	
Missing	System	51	69,9		
Total		73	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	1	1,4	1,4	1,4
2	6	8,2	8,2	9,6
3	9	12,3	12,3	21,9
4	27	37,0	37,0	58,9
5	30	41,1	41,1	100,0
Total	73	100,0	100,0	

DESCRIPTIVES VARIABLES=Lab Online
/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

Output Created		03-OCT-2016 01:08:19
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	73
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=Lab Online /STATISTICS=MEAN STDDEV VARIANCE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Lab	22	3,86	1,082	1,171
Online	73	4,08	,997	,993
Valid N (listwise)	22			

NPAR TESTS
/FRIEDMAN=Lab Online
/STATISTICS DESCRIPTIVES
/MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 01:08:26
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	73
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,86	1,082	1	5
Online	22	3,91	1,151	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,48
Online	1,52

Test Statistics^a

N	22
Chi-Square	,077
df	1
Asymp. Sig.	,782

a. Friedman Test

NPAR TESTS

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

NPar Tests

Notes

Output Created		03-OCT-2016 01:08:34
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	73
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,86	1,082	1	5
Online	73	4,08	,997	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	6 ^a	7,17	43,00
	Positive Ranks	7 ^b	6,86	48,00
	Ties	9 ^c		
	Total	22		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,182 ^b
Asymp. Sig. (2-tailed)	,856

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:11:01
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	65
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	14	52
	Missing	51	13
Mode		3	3
Range		3	4
Minimum		2	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	4,6	21,4	21,4
	3	6	9,2	42,9	64,3
	4	1	1,5	7,1	71,4
	5	4	6,2	28,6	100,0
	Total	14	21,5	100,0	
Missing	System	51	78,5		
Total		65	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	7,7	9,6	9,6
	2	6	9,2	11,5	21,2
	3	16	24,6	30,8	51,9
	4	13	20,0	25,0	76,9
	5	12	18,5	23,1	100,0
	Total	52	80,0	100,0	
Missing	System	13	20,0		
Total		65	100,0		

NPAR TESTS

/FRIEDMAN=Lab Online

/STATISTICS DESCRIPTIVES

/MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 01:11:34
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	65
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	14	3,43	1,158	2	5
Online	14	3,50	1,345	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,54
Online	1,46

Test Statistics^a

N	14
Chi-Square	,111
df	1
Asymp. Sig.	,739

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:12:09
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	65
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	14	3,43	1,158	2	5
Online	52	3,40	1,241	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab Negative Ranks	5 ^a	4,20	21,00
Positive Ranks	4 ^b	6,00	24,00
Ties	5 ^c		
Total	14		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,181^b
Asymp. Sig. (2-tailed)	,856

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:13:27
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	77
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	19	77
	Missing	58	0
Mode		3 ^a	4
Range		3	4
Minimum		2	1
Maximum		5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	3,9	15,8	15,8
	3	7	9,1	36,8	52,6
	4	7	9,1	36,8	89,5
	5	2	2,6	10,5	100,0
	Total	19	24,7	100,0	
Missing	System	58	75,3		
Total		77	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	3,9	3,9	3,9
	2	8	10,4	10,4	14,3
	3	25	32,5	32,5	46,8
	4	26	33,8	33,8	80,5
	5	15	19,5	19,5	100,0
	Total	77	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:14:01
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	77
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	19	3,42	,902	2	5
Online	19	3,26	1,098	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,55
Online	1,45

Test Statistics^a

N	19
Chi-Square	,250
df	1
Asymp. Sig.	,617

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:14:34
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	77
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	19	3,42	,902	2	5
Online	77	3,55	1,046	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	9 ^a	8,50	76,50
	Positive Ranks	7 ^b	8,50	59,50
	Ties	3 ^c		
	Total	19		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,450 ^b
Asymp. Sig. (2-tailed)	,653

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:15:16
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	62
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	13	62
	Missing	49	0
Mode		2	5
Range		4	4
Minimum		1	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	3,2	15,4	15,4
	2	4	6,5	30,8	46,2
	3	3	4,8	23,1	69,2
	4	1	1,6	7,7	76,9
	5	3	4,8	23,1	100,0
	Total	13	21,0	100,0	
Missing	System	49	79,0		
Total		62	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	11	17,7	17,7	17,7
2	9	14,5	14,5	32,3
3	13	21,0	21,0	53,2
4	9	14,5	14,5	67,7
5	20	32,3	32,3	100,0
Total	62	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 01:15:35
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	62
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	13	2,92	1,441	1	5
Online	13	2,62	1,502	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,50
Online	1,50

Test Statistics^a

N	13
Chi-Square	,000
df	1
Asymp. Sig.	1,000

a. Friedman Test

NPARTESTS

/WILCOXON=Lab WITH Online (PAIRED)

/STATISTICS DESCRIPTIVES

/MISSING ANALYSIS.

NPar Tests

Notes

Output Created		03-OCT-2016 01:16:42
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	62
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	13	2,92	1,441	1	5
Online	62	3,29	1,497	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	6 ^a	7,50	45,00
Positive Ranks	6 ^b	5,50	33,00
Ties	1 ^c		
Total	13		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,474 ^b
Asymp. Sig. (2-tailed)	,635

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:17:18
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	76
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	22
	Missing	0
Mode	3	5
Range	4	5
Minimum	1	0
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,3	4,5	4,5
	2	3	3,9	13,6	18,2
	3	8	10,5	36,4	54,5
	4	4	5,3	18,2	72,7
	5	6	7,9	27,3	100,0
	Total	22	28,9	100,0	
Missing	System	54	71,1		
Total		76	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	1,3	1,3	1,3
	1	4	5,3	5,3	6,6
	2	14	18,4	18,4	25,0
	3	13	17,1	17,1	42,1
	4	13	17,1	17,1	59,2
	5	31	40,8	40,8	100,0
	Total	76	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.
  
```

NPar Tests

Notes

Output Created		03-OCT-2016 01:17:42
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	76
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,50	1,185	1	5
Online	22	3,32	1,585	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,52
Online	1,48

Test Statistics^a

N	22
Chi-Square	,053
df	1
Asymp. Sig.	,819

a. Friedman Test

NPAR TESTS
 /WILCOXON=Lab WITH Online (PAIRED)
 /STATISTICS DESCRIPTIVES

NPar Tests

Notes

Output Created		03-OCT-2016 01:18:29
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	7 6
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,50	1,185	1	5
Online	76	3,66	1,381	0	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	10 ^a	10,45	104,50
	Positive Ranks	9 ^b	9,50	85,50
	Ties	3 ^c		
	Total	22		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,389 ^b
Asymp. Sig. (2-tailed)	,697

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:33:21
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	68
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	23	68
	Missing	45	0
Mode		5	5
Range		3	4
Minimum		2	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1,5	4,3	4,3
	3	4	5,9	17,4	21,7
	4	8	11,8	34,8	56,5
	5	10	14,7	43,5	100,0
	Total	23	33,8	100,0	
Missing	System	45	66,2		
Total		68	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	1	1,5	1,5	1,5
2	6	8,8	8,8	10,3
3	10	14,7	14,7	25,0
4	22	32,4	32,4	57,4
5	29	42,6	42,6	100,0
Total	68	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 01:33:30
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	68
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:01,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	23	4,17	,887	2	5
Online	23	4,13	1,180	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,46
Online	1,54

Test Statistics^a

N	23
Chi-Square	,250
df	1
Asymp. Sig.	,617

a. Friedman Test

NPAR TESTS

```
/WILCOXON=Lab WITH Online (PAIRED)  
/STATISTICS DESCRIPTIVES  
/MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		03-OCT-2016 01:33:38
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	68
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	23	4,17	,887	2	5
Online	68	4,06	1,035	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	7 ^a	9,93	69,50
Positive Ranks	9 ^b	7,39	66,50
Ties	7 ^c		
Total	23		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,079^b
Asymp. Sig. (2-tailed)	,937

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:35:00
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	21	71
	Missing	50	0
Mode		3 ^a	4
Range		3	4
Minimum		2	1
Maximum		5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	2,8	9,5	9,5
	3	7	9,9	33,3	42,9
	4	7	9,9	33,3	76,2
	5	5	7,0	23,8	100,0
	Total	21	29,6	100,0	
Missing	System	50	70,4		
Total		71	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	2,8	2,8	2,8
	2	11	15,5	15,5	18,3
	3	16	22,5	22,5	40,8
	4	22	31,0	31,0	71,8
	5	20	28,2	28,2	100,0
	Total	71	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:35:09
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	21	3,71	,956	2	5
Online	21	3,67	1,065	2	5

Friedman Test

Ranks

	Mean Rank
Lab	1,45
Online	1,55

Test Statistics^a

N	21
Chi-Square	,250
df	1
Asymp. Sig.	,617

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:35:17
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	21	3,71	,956	2	5
Online	71	3,66	1,133	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	7 ^a	10,36	72,50
	Positive Ranks	9 ^b	7,06	63,50
	Ties	5 ^c		
	Total	21		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,242 ^b
Asymp. Sig. (2-tailed)	,809

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:36:36
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	66
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	16	53
	Missing	50	13
Mode		5	4
Range		4	4
Minimum		1	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,5	6,3	6,3
	2	2	3,0	12,5	18,8
	3	4	6,1	25,0	43,8
	4	4	6,1	25,0	68,8
	5	5	7,6	31,3	100,0
Total		16	24,2	100,0	
Missing	System	50	75,8		
Total		66	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	4,5	5,7	5,7
	2	6	9,1	11,3	17,0
	3	15	22,7	28,3	45,3
	4	18	27,3	34,0	79,2
	5	11	16,7	20,8	100,0
	Total	53	80,3	100,0	
Missing	System	13	19,7		
Total		66	100,0		

NPAR TESTS

```

/FRIEDMAN=Lab Online
/STATISTICS DESCRIPTIVES
/MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:36:45
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	66
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	16	3,63	1,258	1	5
Online	16	3,38	1,147	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,59
Online	1,41

Test Statistics^a

N	16
Chi-Square	,692
df	1
Asymp. Sig.	,405

a. Friedman Test

NPAR TESTS

```
/WILCOXON=Lab WITH Online (PAIRED)  
/STATISTICS DESCRIPTIVES  
/MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		03-OCT-2016 01:36:51
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	66
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	16	3,63	1,258	1	5
Online	53	3,53	1,120	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	8 ^a	7,25	58,00
Positive Ranks	5 ^b	6,60	33,00
Ties	3 ^c		
Total	16		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,908^b
Asymp. Sig. (2-tailed)	,364

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:40:57
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	81
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	22	81
	Missing	59	0
Mode		3 ^a	3
Range		3	4
Minimum		2	1
Maximum		5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	2,5	9,1	9,1
	3	9	11,1	40,9	50,0
	4	9	11,1	40,9	90,9
	5	2	2,5	9,1	100,0
	Total	22	27,2	100,0	
Missing	System	59	72,8		
Total		81	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	4,9	4,9	4,9
	2	11	13,6	13,6	18,5
	3	25	30,9	30,9	49,4
	4	23	28,4	28,4	77,8
	5	18	22,2	22,2	100,0
	Total	81	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:41:12
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	81
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,50	,802	2	5
Online	22	3,64	1,255	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,39
Online	1,61

Test Statistics^a

N	22
Chi-Square	1,667
df	1
Asymp. Sig.	,197

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:41:24
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	81
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	22	3,50	,802	2	5
Online	81	3,49	1,131	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	5 ^a	10,20	51,00
	Positive Ranks	10 ^b	6,90	69,00
	Ties	7 ^c		
	Total	22		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,522 ^b
Asymp. Sig. (2-tailed)	,602

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:42:42
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	85
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	16	72
	Missing	69	13
Mode		4	4
Range		3	4
Minimum		2	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1,2	6,3	6,3
	3	5	5,9	31,3	37,5
	4	7	8,2	43,8	81,3
	5	3	3,5	18,8	100,0
	Total	16	18,8	100,0	
Missing	System	69	81,2		
Total		85	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	4,7	5,6	5,6
	2	8	9,4	11,1	16,7
	3	19	22,4	26,4	43,1
	4	24	28,2	33,3	76,4
	5	17	20,0	23,6	100,0
	Total	72	84,7	100,0	
Missing	System	13	15,3		
Total		85	100,0		

NPAR TESTS

```

/FRIEDMAN=Lab Online
/STATISTICS DESCRIPTIVES
/MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:42:48
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	85
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:01,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	16	3,75	,856	2	5
Online	16	3,69	,946	2	5

Friedman Test

Ranks

	Mean Rank
Lab	1,44
Online	1,56

Test Statistics^a

N	16
Chi-Square	,333
df	1
Asymp. Sig.	,564

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:43:00
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	85
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	16	3,75	,856	2	5
Online	72	3,58	1,135	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	5 ^a	8,50	42,50
Positive Ranks	7 ^b	5,07	35,50
Ties	4 ^c		
Total	16		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,281^b
Asymp. Sig. (2-tailed)	,779

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:44:10
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	63
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	15
	Missing	0
Mode	3	3
Range	3	4
Minimum	2	1
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1,6	6,7	6,7
	3	8	12,7	53,3	60,0
	4	4	6,3	26,7	86,7
	5	2	3,2	13,3	100,0
	Total	15	23,8	100,0	
Missing	System	48	76,2		
Total		63	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	6,3	6,3	6,3
	2	12	19,0	19,0	25,4
	3	22	34,9	34,9	60,3
	4	13	20,6	20,6	81,0
	5	12	19,0	19,0	100,0
	Total	63	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.
  
```

NPar Tests

Notes

Output Created		03-OCT-2016 01:44:19
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	63
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	15	3,47	,834	2	5
Online	15	3,13	1,125	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,60
Online	1,40

Test Statistics^a

N	15
Chi-Square	,818
df	1
Asymp. Sig.	,366

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:44:27
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	63
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	15	3,47	,834	2	5
Online	63	3,27	1,167	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	7 ^a	6,36	44,50
	Positive Ranks	4 ^b	5,38	21,50
	Ties	4 ^c		
	Total	15		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-1,058 ^b
Asymp. Sig. (2-tailed)	,290

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:46:04
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	23	71
	Missing	48	0
Mode		4 ^a	5
Range		3	5
Minimum		2	0
Maximum		5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	2,8	8,7	8,7
	3	5	7,0	21,7	30,4
	4	8	11,3	34,8	65,2
	5	8	11,3	34,8	100,0
	Total	23	32,4	100,0	
Missing	System	48	67,6		
Total		71	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	1,4	1,4	1,4
	1	2	2,8	2,8	4,2
	2	5	7,0	7,0	11,3
	3	14	19,7	19,7	31,0
	4	22	31,0	31,0	62,0
	5	27	38,0	38,0	100,0
	Total	71	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 01:46:11
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	23	3,96	,976	2	5
Online	23	4,17	,984	2	5

Friedman Test

Ranks

	Mean Rank
Lab	1,43
Online	1,57

Test Statistics^a

N	23
Chi-Square	,529
df	1
Asymp. Sig.	,467

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:46:16
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	23	3,96	,976	2	5
Online	71	3,90	1,161	0	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	7 ^a	8,57	60,00
Positive Ranks	10 ^b	9,30	93,00
Ties	6 ^c		
Total	23		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,808^b
Asymp. Sig. (2-tailed)	,419

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:52:56
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	29
	Missing	0
Mode	3	3
Range	4	5
Minimum	1	0
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1,9	6,9	6,9
	2	5	4,8	17,2	24,1
	3	13	12,4	44,8	69,0
	4	6	5,7	20,7	89,7
	5	3	2,9	10,3	100,0
	Total	29	27,6	100,0	
Missing	System	76	72,4		
Total		105	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	1,0	1,0	1,0
	1	20	19,0	19,0	20,0
	2	23	21,9	21,9	41,9
	3	39	37,1	37,1	79,0
	4	13	12,4	12,4	91,4
	5	9	8,6	8,6	100,0
	Total	105	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:53:04
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	29	3,10	1,047	1	5
Online	29	2,69	1,257	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,62
Online	1,38

Test Statistics^a

N	29
Chi-Square	1,960
df	1
Asymp. Sig.	,162

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:53:11
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	29	3,10	1,047	1	5
Online	105	2,67	1,198	0	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	16 ^a	13,00	208,00
	Positive Ranks	9 ^b	13,00	117,00
	Ties	4 ^c		
	Total	29		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-1,264 ^b
Asymp. Sig. (2-tailed)	,206

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:55:35
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	117
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	28	104
	Missing	89	13
Mode		3	5
Range		3	4
Minimum		2	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	3,4	14,3	14,3
	3	10	8,5	35,7	50,0
	4	9	7,7	32,1	82,1
	5	5	4,3	17,9	100,0
	Total	28	23,9	100,0	
Missing	System	89	76,1		
Total		117	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	6,0	6,7	6,7
	2	14	12,0	13,5	20,2
	3	26	22,2	25,0	45,2
	4	27	23,1	26,0	71,2
	5	30	25,6	28,8	100,0
	Total	104	88,9	100,0	
Missing	System	13	11,1		
Total		117	100,0		

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 01:55:43
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	117
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,54	,962	2	5
Online	28	3,50	1,262	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,43
Online	1,57

Test Statistics^a

N	28
Chi-Square	,667
df	1
Asymp. Sig.	,414

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:55:48
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	117
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,54	,962	2	5
Online	104	3,57	1,229	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	10 ^a	16,00	160,00
Positive Ranks	14 ^b	10,00	140,00
Ties	4 ^c		
Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,291 ^b
Asymp. Sig. (2-tailed)	,771

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 01:57:40
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	100
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	28
	Missing	0
Mode	2	3
Range	4	4
Minimum	1	1
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,0	3,6	3,6
	2	8	8,0	28,6	32,1
	3	6	6,0	21,4	53,6
	4	7	7,0	25,0	78,6
	5	6	6,0	21,4	100,0
	Total	28	28,0	100,0	
Missing	System	72	72,0		
Total		100	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	15,0	15,0	15,0
	2	14	14,0	14,0	29,0
	3	31	31,0	31,0	60,0
	4	26	26,0	26,0	86,0
	5	14	14,0	14,0	100,0
	Total	100	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.
  
```

NPar Tests

Notes

Output Created		03-OCT-2016 01:57:51
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	100
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,32	1,219	1	5
Online	28	3,04	1,427	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,55
Online	1,45

Test Statistics^a

N	28
Chi-Square	,391
df	1
Asymp. Sig.	,532

a. Friedman Test


```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 01:57:58
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	100
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,32	1,219	1	5
Online	100	3,10	1,251	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	13 ^a	12,46	162,00
	Positive Ranks	10 ^b	11,40	114,00
	Ties	5 ^c		
	Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,744 ^b
Asymp. Sig. (2-tailed)	,457

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:00:51
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	29	105
	Missing	76	0
Mode		3	3
Range		4	4
Minimum		1	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1,9	6,9	6,9
	2	5	4,8	17,2	24,1
	3	12	11,4	41,4	65,5
	4	7	6,7	24,1	89,7
	5	3	2,9	10,3	100,0
	Total	29	27,6	100,0	
Missing	System	76	72,4		
Total		105	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	10	9,5	9,5	9,5
2	24	22,9	22,9	32,4
3	41	39,0	39,0	71,4
4	19	18,1	18,1	89,5
5	11	10,5	10,5	100,0
Total	105	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 02:01:08
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	29	3,14	1,060	1	5
Online	29	2,93	1,067	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,55
Online	1,45

Test Statistics^a

N	29
Chi-Square	,360
df	1
Asymp. Sig.	,549

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:01:14
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	29	3,14	1,060	1	5
Online	105	2,97	1,105	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	14 ^a	13,32	186,50
Positive Ranks	11 ^b	12,59	138,50
Ties	4 ^c		
Total	29		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,660^b
Asymp. Sig. (2-tailed)	,509

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:02:58
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	112
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	28
	Missing	0
Mode	3	3
Range	4	4
Minimum	1	1
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	,9	3,6	3,6
	2	5	4,5	17,9	21,4
	3	12	10,7	42,9	64,3
	4	9	8,0	32,1	96,4
	5	1	,9	3,6	100,0
	Total	28	25,0	100,0	
Missing	System	84	75,0		
Total		112	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	8,0	8,0	8,0
	2	22	19,6	19,6	27,7
	3	41	36,6	36,6	64,3
	4	29	25,9	25,9	90,2
	5	11	9,8	9,8	100,0
	Total	112	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:03:08
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	112
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,14	,891	1	5
Online	28	3,11	1,166	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,48
Online	1,52

Test Statistics^a

N	28
Chi-Square	,048
df	1
Asymp. Sig.	,827

a. Friedman Test

NPAR TESTS
 /WILCOXON=Lab WITH Online (PAIRED)
 /STATISTICS DESCRIPTIVES

NPar Tests

Notes

Output Created		03-OCT-2016 02:03:14
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	112
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,14	,891	1	5
Online	112	3,10	1,082	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	10 ^a	12,35	123,50
	Positive Ranks	11 ^b	9,77	107,50
	Ties	7 ^c		
	Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,284 ^b
Asymp. Sig. (2-tailed)	,777

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:04:34
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	27	105
	Missing	78	0
Mode		3	5
Range		4	5
Minimum		1	0
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,0	3,7	3,7
	2	5	4,8	18,5	22,2
	3	11	10,5	40,7	63,0
	4	6	5,7	22,2	85,2
	5	4	3,8	14,8	100,0
	Total	27	25,7	100,0	
Missing	System	78	74,3		
Total		105	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	1	1,0	1,0	1,0
1	1	1,0	1,0	1,9
2	7	6,7	6,7	8,6
3	15	14,3	14,3	22,9
4	34	32,4	32,4	55,2
5	47	44,8	44,8	100,0
Total	105	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 02:04:44
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	27	3,26	1,059	1	5
Online	27	4,04	1,224	0	5

Friedman Test

Ranks

	Mean Rank
Lab	1,28
Online	1,72

Test Statistics^a

N	27
Chi-Square	6,000
df	1
Asymp. Sig.	,014

a. Friedman Test

NPAR TESTS

```
/WILCOXON=Lab WITH Online (PAIRED)  
/STATISTICS DESCRIPTIVES  
/MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		03-OCT-2016 02:04:50
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	27	3,26	1,059	1	5
Online	105	4,10	1,046	0	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	6 ^a	9,83	59,00
Positive Ranks	18 ^b	13,39	241,00
Ties	3 ^c		
Total	27		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-2,686^b
Asymp. Sig. (2-tailed)	,007

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:07:53
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	28
	Missing	0
Mode	2	3
Range	4	4
Minimum	1	1
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1,9	7,1	7,1
	2	10	9,5	35,7	42,9
	3	5	4,8	17,9	60,7
	4	7	6,7	25,0	85,7
	5	4	3,8	14,3	100,0
	Total	28	26,7	100,0	
Missing	System	77	73,3		
Total		105	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	14,3	14,3	14,3
	2	26	24,8	24,8	39,0
	3	31	29,5	29,5	68,6
	4	20	19,0	19,0	87,6
	5	13	12,4	12,4	100,0
	Total	105	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.
  
```

NPar Tests

Notes

Output Created		03-OCT-2016 02:08:04
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,04	1,232	1	5
Online	28	3,07	1,120	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,48
Online	1,52

Test Statistics^a

N	28
Chi-Square	,043
df	1
Asymp. Sig.	,835

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:08:26
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,04	1,232	1	5
Online	105	2,90	1,229	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	11 ^a	12,18	134,00
	Positive Ranks	12 ^b	11,83	142,00
	Ties	5 ^c		
	Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,124 ^b
Asymp. Sig. (2-tailed)	,901

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:10:30
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	110
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	27	110
	Missing	83	0
Mode		3	2
Range		3	4
Minimum		1	1
Maximum		4	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1,8	7,4	7,4
	2	8	7,3	29,6	37,0
	3	13	11,8	48,1	85,2
	4	4	3,6	14,8	100,0
	Total	27	24,5	100,0	
Missing	System	83	75,5		
Total		110	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	15,5	15,5	15,5
	2	36	32,7	32,7	48,2
	3	28	25,5	25,5	73,6
	4	15	13,6	13,6	87,3
	5	14	12,7	12,7	100,0
	Total	110	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 02:10:40
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	110
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	27	2,70	,823	1	4
Online	27	2,63	1,182	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,59
Online	1,41

Test Statistics^a

N	27
Chi-Square	1,316
df	1
Asymp. Sig.	,251

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:10:48
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	110
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	27	2,70	,823	1	4
Online	110	2,75	1,243	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	12 ^a	9,17	110,00
Positive Ranks	7 ^b	11,43	80,00
Ties	8 ^c		
Total	27		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,623^b
Asymp. Sig. (2-tailed)	,534

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:12:19
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	106
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	28	106
	Missing	78	0
Mode		4	2 ^a
Range		4	4
Minimum		1	1
Maximum		5	5

a. Multiple modes exist. The smallest value is shown

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1,9	7,1	7,1
	2	4	3,8	14,3	21,4
	3	6	5,7	21,4	42,9
	4	10	9,4	35,7	78,6
	5	6	5,7	21,4	100,0
	Total	28	26,4	100,0	
Missing	System	78	73,6		
Total		106	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	13	12,3	12,3	12,3
	2	28	26,4	26,4	38,7
	3	28	26,4	26,4	65,1
	4	26	24,5	24,5	89,6
	5	11	10,4	10,4	100,0
	Total	106	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:12:28
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	106
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,50	1,202	1	5
Online	28	2,86	1,407	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,61
Online	1,39

Test Statistics^a

N	28
Chi-Square	1,800
df	1
Asymp. Sig.	,180

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:12:35
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	106
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,50	1,202	1	5
Online	106	2,94	1,194	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	13 ^a	12,23	159,00
	Positive Ranks	7 ^b	7,29	51,00
	Ties	8 ^c		
	Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-2,048 ^b
Asymp. Sig. (2-tailed)	,041

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:19:28
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	118
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	28	118
	Missing	90	0
Mode		3	2
Range		4	5
Minimum		1	0
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	4,2	17,9	17,9
	2	7	5,9	25,0	42,9
	3	10	8,5	35,7	78,6
	4	4	3,4	14,3	92,9
	5	2	1,7	7,1	100,0
	Total	28	23,7	100,0	
Missing	System	90	76,3		
Total		118	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	1	,8	,8	,8
1	35	29,7	29,7	30,5
2	38	32,2	32,2	62,7
3	29	24,6	24,6	87,3
4	7	5,9	5,9	93,2
5	8	6,8	6,8	100,0
Total	118	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 02:19:36
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	118
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	2,68	1,156	1	5
Online	28	1,96	,962	1	4

Friedman Test

Ranks

	Mean Rank
Lab	1,70
Online	1,30

Test Statistics^a

N	28
Chi-Square	5,762
df	1
Asymp. Sig.	,016

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:19:43
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	118
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	2,68	1,156	1	5
Online	118	2,25	1,171	0	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	16 ^a	11,81	189,00
Positive Ranks	5 ^b	8,40	42,00
Ties	7 ^c		
Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-2,624^b
Asymp. Sig. (2-tailed)	,009

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:21:11
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	110
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	28
	Missing	0
Mode	3	4
Range	4	5
Minimum	1	0
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	2,7	10,7	10,7
	2	4	3,6	14,3	25,0
	3	10	9,1	35,7	60,7
	4	7	6,4	25,0	85,7
	5	4	3,6	14,3	100,0
	Total	28	25,5	100,0	
Missing	System	82	74,5		
Total		110	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	,9	,9	,9
	1	9	8,2	8,2	9,1
	2	19	17,3	17,3	26,4
	3	27	24,5	24,5	50,9
	4	34	30,9	30,9	81,8
	5	20	18,2	18,2	100,0
	Total	110	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:21:18
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	110
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,18	1,188	1	5
Online	28	2,93	1,359	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,54
Online	1,46

Test Statistics^a

N	28
Chi-Square	,167
df	1
Asymp. Sig.	,683

a. Friedman Test

NPAR TESTS
 /WILCOXON=Lab WITH Online (PAIRED)
 /STATISTICS DESCRIPTIVES

NPar Tests

Notes

Output Created		03-OCT-2016 02:21:24
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	110
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,18	1,188	1	5
Online	110	3,31	1,240	0	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	13 ^a	13,58	176,50
	Positive Ranks	11 ^b	11,23	123,50
	Ties	4 ^c		
	Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,771 ^b
Asymp. Sig. (2-tailed)	,441

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:22:56
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	101
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	29	101
	Missing	72	0
Mode		3	3
Range		4	5
Minimum		1	0
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,0	3,4	3,4
	2	2	2,0	6,9	10,3
	3	13	12,9	44,8	55,2
	4	8	7,9	27,6	82,8
	5	5	5,0	17,2	100,0
	Total	29	28,7	100,0	
Missing	System	72	71,3		
Total		101	100,0		

Online

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	1	1,0	1,0	1,0
1	6	5,9	5,9	6,9
2	10	9,9	9,9	16,8
3	35	34,7	34,7	51,5
4	32	31,7	31,7	83,2
5	17	16,8	16,8	100,0
Total	101	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 02:23:03
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	101
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	29	3,48	,986	1	5
Online	29	3,45	1,298	0	5

Friedman Test

Ranks

	Mean Rank
Lab	1,50
Online	1,50

Test Statistics^a

N	29
Chi-Square	,000
df	1
Asymp. Sig.	1,000

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:23:10
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	101
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	29	3,48	,986	1	5
Online	101	3,41	1,124	0	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	11 ^a	11,73	129,00
Positive Ranks	11 ^b	11,27	124,00
Ties	7 ^c		
Total	29		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,083^b
Asymp. Sig. (2-tailed)	,934

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:24:33
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	101
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	28
	Missing	73
Mode	4	3
Range	4	4
Minimum	1	1
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	2,0	7,1	7,1
	2	5	5,0	17,9	25,0
	3	8	7,9	28,6	53,6
	4	10	9,9	35,7	89,3
	5	3	3,0	10,7	100,0
	Total	28	27,7	100,0	
Missing	System	73	72,3		
Total		101	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	7,9	7,9	7,9
	2	19	18,8	18,8	26,7
	3	36	35,6	35,6	62,4
	4	22	21,8	21,8	84,2
	5	16	15,8	15,8	100,0
	Total	101	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:24:42
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	101
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,25	1,110	1	5
Online	28	2,96	1,374	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,52
Online	1,48

Test Statistics^a

N	28
Chi-Square	,048
df	1
Asymp. Sig.	,827

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:24:49
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	101
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,25	1,110	1	5
Online	101	3,19	1,155	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	11 ^a	12,91	142,00
	Positive Ranks	10 ^b	8,90	89,00
	Ties	7 ^c		
	Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,940 ^b
Asymp. Sig. (2-tailed)	,347

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:25:55
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	99
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

		Lab	Online
N	Valid	28	99
	Missing	71	0
Mode		4	3
Range		3	4
Minimum		2	1
Maximum		5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	5,1	17,9	17,9
	3	8	8,1	28,6	46,4
	4	9	9,1	32,1	78,6
	5	6	6,1	21,4	100,0
	Total	28	28,3	100,0	
Missing	System	71	71,7		
Total		99	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	5,1	5,1	5,1
	2	8	8,1	8,1	13,1
	3	35	35,4	35,4	48,5
	4	24	24,2	24,2	72,7
	5	27	27,3	27,3	100,0
	Total	99	100,0	100,0	

NPAR TESTS
 /FRIEDMAN=Lab Online
 /STATISTICS DESCRIPTIVES
 /MISSING LISTWISE.

NPar Tests

Notes

Output Created		03-OCT-2016 02:26:02
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	99
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPAR TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,57	1,034	2	5
Online	28	3,64	1,224	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,41
Online	1,59

Test Statistics^a

N	28
Chi-Square	1,316
df	1
Asymp. Sig.	,251

a. Friedman Test

NPAR TESTS

```

/WILCOXON=Lab WITH Online (PAIRED)
/STATISTICS DESCRIPTIVES
/MISSING ANALYSIS.

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:26:10
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	99
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases	
	Allowed ^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,57	1,034	2	5
Online	99	3,61	1,123	1	5

Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Online - Lab			
Negative Ranks	7 ^a	12,57	88,00
Positive Ranks	12 ^b	8,50	102,00
Ties	9 ^c		
Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,289^b
Asymp. Sig. (2-tailed)	,773

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
FREQUENCIES VARIABLES=Lab Online
/STATISTICS=RANGE MINIMUM MAXIMUM MODE
/FORMAT=LIMIT(50)
/ORDER=ANALYSIS.
```

Frequencies

Notes

Output Created		03-OCT-2016 02:27:23
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
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=Lab Online /STATISTICS=RANGE MINIMUM MAXIMUM MODE /FORMAT=LIMIT(50) /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

Statistics

	Lab	Online
N	Valid	28
	Missing	0
Mode	4	3
Range	4	4
Minimum	1	1
Maximum	5	5

Frequency Table

Lab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1,0	3,6	3,6
	2	4	3,8	14,3	17,9
	3	9	8,7	32,1	50,0
	4	12	11,5	42,9	92,9
	5	2	1,9	7,1	100,0
	Total	28	26,9	100,0	
Missing	System	76	73,1		
Total		104	100,0		

Online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	6,7	6,7	6,7
	2	10	9,6	9,6	16,3
	3	34	32,7	32,7	49,0
	4	26	25,0	25,0	74,0
	5	27	26,0	26,0	100,0
	Total	104	100,0	100,0	

```

NPAR TESTS
  /FRIEDMAN=Lab Online
  /STATISTICS DESCRIPTIVES
  /MISSING LISTWISE.
  
```

NPar Tests

Notes

Output Created		03-OCT-2016 02:27:30
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.
Syntax		NPART TESTS /FRIEDMAN=Lab Online /STATISTICS DESCRIPTIVES /MISSING LISTWISE.
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,36	,951	1	5
Online	28	3,64	1,311	1	5

Friedman Test

Ranks

	Mean Rank
Lab	1,38
Online	1,63

Test Statistics^a

N	28
Chi-Square	2,130
df	1
Asymp. Sig.	,144

a. Friedman Test

```

NPAR TESTS
  /WILCOXON=Lab WITH Online (PAIRED)
  /STATISTICS DESCRIPTIVES

```

NPar Tests

Notes

Output Created		03-OCT-2016 02:27:41
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
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 /WILCOXON=Lab WITH Online (PAIRED) /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed^a	112347

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Lab	28	3,36	,951	1	5
Online	104	3,54	1,174	1	5

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Online - Lab	Negative Ranks	8 ^a	13,63	109,00
	Positive Ranks	15 ^b	11,13	167,00
	Ties	5 ^c		
	Total	28		

a. Online < Lab

b. Online > Lab

c. Online = Lab

Test Statistics^a

	Online - Lab
Z	-,905 ^b
Asymp. Sig. (2-tailed)	,365

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.