

## NPART TESTS

```
/M-W= RollenverständnisBY Methode(1 2)
/MISSING ANALYSIS.
```

## NPar Tests

### Notes

Output Created		21-AUG-2018 11:18:25
Comments		
Input	Data	N:\R-CRC\SPSS\CRC.sav
	Active Dataset	DataSet1
	Filter	Gruppe = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	178
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPART TESTS /M-W= Rollenverständnis BY Methode(1 2) /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed <sup>a</sup>	449389

a. Based on availability of workspace memory.

## Mann-Whitney Test [1]

### Ranks

	Method	N	Mean Rank	Sum of Ranks
Evaluate your understanding of roles of objects in modeling in general after the exercise on (R)-CRC card techniques.	CRC	90	86,69	7802,50
	R-CRC	86	90,39	7773,50
	Total	176		

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

Evaluate your understanding of roles of objects in modeling in general after the exercise on (R)-CRC card techniques.

Mann-Whitney U	3707,500
Wilcoxon W	7802,500
Z	-,517
Asymp. Sig. (2-tailed)	,605

a. Grouping Variable: Method

### Frequencies R-CRC [2]

## Notes

Output Created		21-AUG-2018 11:31:46
Comments		
Input	Data	N:\R-CRC\SPSS\CRC.sav
	Active Dataset	DataSet1
	Filter	Methode = 2 AND Gruppe = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	86
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=Rollenverständnis /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

## Statistics

Variables: Bewerten Sie Ihr Verständnis zu Rollen von Objekten in der Modellierung allgemein nach der Übung zum Thema CRC

N	Valid	86
	Missing	0

**Evaluate your understanding of roles of objects in modeling in general after the exercise on (R)-CRC card techniques.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	sehr gut	6	7,0	7,0	7,0
	gut	39	45,3	45,3	52,3
	befriedigend	31	36,0	36,0	88,4
	ausreichend	9	10,5	10,5	98,8
	ungenügend	1	1,2	1,2	100,0
	Total	86	100,0	100,0	

## Frequencies CRC [3]

## Notes

Output Created		21-AUG-2018 11:34:49
Comments		
Input	Data	N:\R-CRC\SPSS\CRC.sav
	Active Dataset	DataSet1
	Filter	Methode = 1 AND Gruppe = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	92
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=Rollenverständnis /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

## Statistics

Bewerten Sie Ihr Verständnis zu Rollen von Objekten in der Modellierung allgemein nach der Übung zum Thema CRC-Kartenverf

N	Valid	90
	Missing	2

**Evaluate your understanding of roles of objects in modeling in general after the exercise on (R)-CRC card techniques.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	sehr gut	9	9,8	10,0	10,0
	gut	43	46,7	47,8	57,8
	befriedigend	24	26,1	26,7	84,4
	ausreichend	13	14,1	14,4	98,9
	ungenügend	1	1,1	1,1	100,0
	Total	90	97,8	100,0	
Missing	99	2	2,2		
Total		92	100,0		

## Notes

Output Created		21-AUG-2018 11:36:23
Comments		
Input	Data	N:\R-CRC\SPSS\CRC.sav
	Active Dataset	DataSet1
	Filter	Methode = 1 AND Gruppe = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	92
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=Rollenverständnis /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00

## NPar Tests

## Notes

Output Created		21-AUG-2018 11:44:08
Comments		
Input	Data	N:\R-CRC\SPSS\CRC.sav
	Active Dataset	DataSet1
	Filter	Gruppe = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	178
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 /M-W= Spielfluss Analyse Einsatz_Lehre insgesamt Verständlichkeit Design BY Methode(1 2) /MISSING ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed <sup>a</sup>	262144

a. Based on availability of workspace memory.

## Mann-Whitney Test [4]

### Ranks

	Method	N	Mean Rank	Sum of Ranks
Please rate the flow of the role-play	CRC	90	80,41	7237,00
	R-CRC	83	94,14	7814,00
	Total	173		
How appropriate is the method to analyze an application domain?	CRC	92	89,70	8252,00
	R-CRC	80	82,83	6626,00
	Total	172		
Please rate the use of the method in teaching.	CRC	89	85,58	7616,50
	R-CRC	81	85,41	6918,50
	Total	170		
Evaluate the card method overall.	CRC	91	85,91	7817,50
	R-CRC	81	87,17	7060,50
	Total	172		
How understandable was the card method for you?	CRC	91	73,77	6713,50
	R-CRC	82	101,68	8337,50
	Total	173		
Please rate the design of the card method (clarity).	CRC	92	85,26	7843,50
	R-CRC	82	90,02	7381,50
	Total	174		

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

	Please rate the flow of the role-play	How appropriate is the method to analyze an application domain?	Please rate the use of the method in teaching.	Evaluate the card method overall.
Mann-Whitney U	3142,000	3386,000	3597,500	3631,500
Wilcoxon W	7237,000	6626,000	6918,500	7817,500
Z	-1,917	-,947	-,023	-,176
Asymp. Sig. (2-tailed)	,055	,343	,982	,860

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

	How understandable was the card method for you?	Please rate the design of the card method (clarity).
Mann-Whitney U	2527,500	3565,500
Wilcoxon W	6713,500	7843,500
Z	-3,986	-,667
Asymp. Sig. (2-tailed)	,000	,505

a. Grouping Variable: Method

## NPar Tests [5]

### Notes

Output Created		21-AUG-2018 11:54:15
Comments		
Input	Data	N:\R-CRC\SPSS\Kartenergebnisse.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	56
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 /M-W= Station_Seite_Aufteilung Station_Seite_Verantwortlichkeiten  Linie_Seite_Verantwortlichkeiten BY Methode(1 2) /MISSING ANALYSIS.



## Notes

Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,00
	Number of Cases Allowed <sup>a</sup>	349525

a. Based on availability of workspace memory.

[DataSet2] N:\R-CRC\SPSS\Kartenergebnisse.sav

## Mann-Whitney Test

### Ranks

	Methode	N	Mean Rank	Sum of Ranks
Station_Seite_Aufteilung (understanding of roles)	CRC	28	21,13	591,50
	R-CRC	28	35,88	1004,50
	Total	56		
Station_Seite_Verantwortlichkeiten (role-play)	CRC	28	34,54	967,00
	R-CRC	28	22,46	629,00
	Total	56		
Linie_Seite_Verantwortlichkeiten (role-play)	CRC	28	32,93	922,00
	R-CRC	28	24,07	674,00
	Total	56		

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

	Station_Seite_Aufteilung (Understanding of roles)	Station_Seite_Verantwortlichkeiten (role-play)
Mann-Whitney U	185,500	223,000
Wilcoxon W	591,500	629,000
Z	-3,749	-2,859
Asymp. Sig. (2-tailed)	,000	,004

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

	Linie_Seite_Verantwortlichkeiten (role-play)
Mann-Whitney U	268,000
Wilcoxon W	674,000
Z	-2,119
Asymp. Sig. (2-tailed)	,034

a. Grouping Variable: Method

## Frequencies CRC [6]

### Notes

Output Created		24-AUG-2018 11:29:45
Comments		
Input	Data	N:\R-CRC\SPSS\CRC.sav
	Active Dataset	DataSet1
	Filter	Methode = 1 AND Gruppe = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	92
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=Verständlichkeit /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,00
	Elapsed Time	00:00:00,02

[DataSet1] N:\R-CRC\SPSS\CRC.sav

### Statistics

Wie verständlich war das Kartenverfahren für Sie?

N	Valid	91
	Missing	1

### How understandable was the card method for you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	sehr gut	27	29,3	29,7	29,7
	gut	47	51,1	51,6	81,3
	befriedigend	14	15,2	15,4	96,7
	ausreichend	1	1,1	1,1	97,8
	ungenügend	2	2,2	2,2	100,0
	Total	91	98,9	100,0	
Missing	99	1	1,1		
Total		92	100,0		

### Frequencies R-CRC [7]

#### Notes

Output Created		24-AUG-2018 11:31:26
Comments		
Input	Data	N:\R-CRC\SPSS\CRC.sav
	Active Dataset	DataSet1
	Filter	Methode = 2 AND Gruppe = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	86
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=Verständlichkeit /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00,02
	Elapsed Time	00:00:00,02

#### Statistics

Wie verständlich war das Kartenverfahren für Sie?

N	Valid	82
	Missing	4

### How understandable was the card method for you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	sehr gut	7	8,1	8,5	8,5
	gut	43	50,0	52,4	61,0
	befriedigend	22	25,6	26,8	87,8
	ausreichend	9	10,5	11,0	98,8
	ungenügend	1	1,2	1,2	100,0
	Total	82	95,3	100,0	
Missing	99	4	4,7		
Total		86	100,0		