

STATISTICS (SPSS FOR BEGINNER)

Chapter 12 (2)

Nonparametric Test (Mann-Whitney & Cochran Test)

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- The difference between nonparametric test and parametric test is that nonparametric test can be done without a specific parameter (mean, median, etc.)

TEST FOR TWO INDEPENDENT SAMPLE

- Mann-Whitney

A. Case 1

*nonpar3.sav

	card_issued	status
1	5	temporary
2	3	temporary
3	5	temporary
4	2	temporary
5	3	temporary
6	2	temporary
7	7	temporary
8	1	temporary
9	4	temporary
10	3	temporary
11	5	temporary
12	9	temporary
13	4	temporary
14	7	permanent
15	11	permanent
16	8	permanent
17	5	permanent
18	6	permanent
19	9	permanent
20	10	permanent

How to:

1. Open nonpar3.sav
2. Choose analyze
3. Choose Nonparametric tests
4. Choose legacy dialogs
5. Choose 2 independent samples
6. Put card_issued on the test variable list box


7. Put status on the grouping variable box
8. Click define group
9. Follow tutorial
10. Click continue
11. Check Mann-whitney box only
12. Click Ok

How to make decision (find the hypothesis):

- If probability (asyp. sig) > 0.05, Ho is accepted
- If probability (asyp. sig) < 0.05, Ho is not accepted

B. Case 2

*nonpar3_asg.sav

	 card_iss ued	 training
1	4	not trained
2	6	not trained
3	7	not trained
4	3	not trained
5	5	not trained
6	6	not trained
7	3	not trained
8	6	not trained
9	3	not trained
10	8	not trained
11	9	not trained
12	3	not trained
13	5	not trained
14	9	trained
15	7	trained
16	6	trained
17	8	trained
18	7	trained
19	10	trained
20	8	trained

How to:

1. Open nonpar3_asg.sav
2. Choose analyze
3. Choose Nonparametric tests

4. Choose legacy dialogs
5. Choose 2 independent samples
6. Put card_issued on the test variable list box
7. Put training on the grouping variable box
8. Click define group
9. Follow tutorial
10. Click continue
11. Check Mann-whitney box only
12. Click Ok

How to make decision (find the hypothesis):





- If probability (asyp. sig) > 0.05, Ho is accepted
- If probability (asyp. sig) < 0.05, Ho is not accepted

TEST FOR MORE THAN TWO RELATED SAMPLES

- Cochran Test

A. Case 1

*nonpar4.sav

	 bank_a	 bank_b	 bank_c	 bank_d
1	1	0	0	1
2	0	1	0	1
3	1	1	0	0
4	0	1	0	0
5	0	1	1	1
6	1	0	1	0
7	1	1	1	1
8	0	1	0	1
9	1	0	0	1
10	1	0	1	0
11	0	1	1	1
12	1	1	1	0

How to:

1. Open nonpar4.sav
2. Choose analyze
3. Choose nonparametric test
4. Choose legacy dialogs
5. Choose k related samples
6. Put bank a,b,c and d to the test variable list box
7. Check Cochran box only




8. Click Ok

How to make decision (find the hypothesis):

- If probability (asyp. sig) > 0.05, Ho is accepted
- If probability (asyp. sig) < 0.05, Ho is not accepted

B. Case 2

*nonpar4_asg.sav

	 team_a	 team_b	 team_c
1	0	1	1
2	0	1	0
3	0	1	1
4	1	1	0
5	1	0	1
6	0	0	1
7	0	0	0
8	1	1	1
9	1	1	1
10	0	0	0

How to:

1. Open nonpar4_asg.sav
2. Choose analyze
3. Choose nonparametric test
4. Choose legacy dialogs
5. Choose k related samples
6. Put team a,b & c to the test variable list box
7. Check Cochran box only
8. Click Ok

How to make decision (find the hypothesis):

- If probability (asyp. sig) > 0.05, Ho is accepted
- If probability (asyp. sig) < 0.05, Ho is not accepted