

AS2 (Assignment 2, Unit 5): Dependent Measures t-test

Please write your answers in red 😊

An investigator is interested in whether the number of dresses tried on in a department store for a wedding will be affected by viewing a fashion magazine. A sample of 5 women was measured on how many dresses each tried on before and after viewing a fashion magazine. The before-and-after scores are as follows:

Subject	Before	After
1	6	2
2	5	7
3	9	6
4	1	3
5	8	5

1. What is the research's hypothesis?

The researcher wants to prove that the number of dresses tried on in a department store for a wedding WILL be affected by viewing a fashion magazine.

2. What is the null hypothesis?

The null hypothesis is the opposite of the researcher's hypothesis and states that the number of dresses tried on in a department store for a wedding will NOT be affected by viewing a fashion magazine.

3. What is the independent variable?

Fashion magazine

4. What is the dependent variable?

Number of dresses tried on in a department store

5. What is the name of the *research design*?

Within subject design

6. What is the appropriate *hypothesis test* to analyze these data?

The dependent measures T test

7. Please run the appropriate SPSS analysis and cut and paste your results here:

8. Based on your SPSS results, please answer the following questions:

(a) What decision did you make? Reject or fail to reject the null? **Reject the null**

(b) Please write your “statistical statement”:

After reviewing the results and data collected from the test of the sample we can conclude that viewing the fashion magazine DID in fact have a effect on the number of wedding dresses tried on in department store.

(c) Please interpret the results of your analysis “in words” and relating DIRECTLY back to the research question.

After reviewing the results and data collected from the test of the sample we can conclude that viewing the fashion magazine DID in fact have a effect on the number of wedding dresses tried on in department store. The research question being that the number of wedding dresses tried on is effected by the viewing of a fashion magazine is seen to be proved within this sample as true, we can see after viewing the data that the mean on average tried on less wedding dresses after viewing the fashion magazine.

(d) Is there a probability of Type I error? **Yes** No_____

(e) Is there a probability of Type II error? **No**