

First, enter these data into SPSS and run your analyses. Here is what your output should look like:

T-Test

[DataSet0]

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Day 1 test score	46.0000	11	19.89975	6.00000
	Last day of class score	71.1818	11	15.91740	4.79928

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Day 1 test score & Last day of class score	11	.176	.605

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Day 1 test score - Last day of class score	-25.18182	23.19404	6.99327	-40.76379	-9.59985	-3.601	10	.005

Second, use the output to answer the following questions (feel free to use the output to check and make sure you entered the data correctly and ran the proper analysis):

1. What is the hypothesis being tested?
2. What is the mean difference score?
3. What is the standard error of the difference between the means?
4. What is the t test statistic?
5. How many degrees of freedom do the researchers have for this analysis?
6. By using Appendix B, locate the critical value that was used to see whether we reject or do not reject the null hypothesis.
7. What is the probability that the difference between the two exam means was due to random variation?
8. Did the researchers reject or fail to reject the null hypothesis?
9. Given your answer to the previous question, what does that mean in plain English?
10. By using Cohen's (1992) guidelines, interpret the effect size.
11. Interpret the 95% CI.
12. Write these results for the text of an article by using proper APA style.

Answers

1. There will be no difference in exam scores at the start of the semester and at the end of the semester.
2. Day 1 mean = 46.00; last day mean = 71.18; mean difference = -25.18
3. 6.99
4. $t = -3.601$

(Continued)