

Do employees perform better at work with music playing? The music was turned on during the working hours of a business with 55 employees. Their productivity level averaged 5.2 with a standard deviation of 2.4. On a different day the music was turned off and there were 50 workers. The workers' productivity level averaged 4.8 with a standard deviation of 1.2. What can we conclude at the .05 level?

1. State the Type of Hypothesis or the TI calculator function to be used (and any settings):
2. State the Null and Alternative Hypotheses:
 H_0 :

 H_a :
3. List all the data entered into your calculator to find the test statistic, or state the formula used if solving by hand.
4. Provide the output of the calculator. If solving by hand, find the test statistic and convert this value to a P-value using your calculator or the table.

5. Graph the critical values and the test statistic on the normal distribution.

6. What is your conclusion based on the critical values/test statistic, or the significance levels/p-values? Do you reject the null or fail to reject the null?

7. Restate your conclusion in the context of the problem (circle your choice):

There IS/IS NOT sufficient evidence that playing music at work
DOES/DOES NOT result in increased productivity.