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Question 1

Is the increase in time spent studying from high school to college the same for nursing majors and biology majors?

> 1. Create a new variable that equals the difference in hours spent studying per week in college versus high school for each student.
>
> 2. Create two vectors of those differences, one for nursing majors and one for biology majors.
>
> 3. Use this data to answer the following questions.

*Use the "PostSurvey.csv" dataset to answer the following questions. Instructions for installing "PostSurvey.csv" can be found under the **Examine the Data** unit in this week's **Pre-Lab** section.*

 (1 point possible)

1a. Which of the following methods should be used to answer the question above?

○ Single-sample independent t-test

○ Two-sample independent t-test   ✔

○ Paired samples t-test

○ Single sample z-test

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[Hide Answer]   *You have used 0 of 1 submissions*

(1 point possible)

1b. Create a histogram to confirm the normality assumption for each sample. Has the normality assumption been met?

○ Yes   ✔

○ No

[Hide Answer]   *You have used 0 of 1 submissions*

(1 point possible)

1c. Run the appropriate t-test for this analysis. What is the **t-statistic**? *(Report as a positive number rounded 2 decimal places.)*

Answer: 0.62

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(1 point possible)

1d. How many **degrees of freedom** are there for this test? *(Round to 2 decimal places.)*

Answer: 30.89

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(1 point possible)

1e. What is the **p-value** for this test? *(Round to 2 decimal places.)*

Answer: 0.54

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(1 point possible)

1f. Which of the following is an appropriate conclusion for this analysis (assuming $\alpha = .05$)?

○ We reject the null hypothesis; the increase in study time is greater for biology and nursing majors.

○ We reject the null hypothesis; the increase in study time is lower for biology and nursing majors.

○ We fail to reject the null hypothesis; the increase in study time is the same for biology and nursing majors. ✔

Hide Answer   *You have used 0 of 1 submissions*

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