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.*

(1/1 point)
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

R Tutorial Videos

Pre-Lab
Pre-Lab due May 03, 2016 at 17:00 UTC

Lab
Lab due May 03, 2016 at 17:00 UTC

Problem Set
Problem Set due May 03, 2016 at 17:00 UTC

- Week 4: Hypothesis Testing (Categorical Data)

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

- (•) Yes ✔
- ( ) No

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

0.62 ✔

Answer: 0.62

0.62

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

30.89 ✔

Answer: 30.89

30.89

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(1/1 point)

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

0.54 ✔

Answer: 0.54

0.54

You have used 1 of 1 submissions

(1/1 point)

1f. Which of the following is an appropriate conclusion for this analysis (assuming α = .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. ✔

You have used 1 of 1 submissions