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Reflect on the Question

Analyze the Data

Draw Conclusions

## Primary Research Quesitons

1. Who is happier at the beginning of the semester: under-classmen or upper-classmen?
2. Does student happiness change from the beginning of the semester to the end?

## Conduct the Analysis in R

1. Type or copy the script from the the Prepare for the Analysis section into the Script window of R.
2. Select the portion of the code you wish to run, then press "ctrl+ enter."
3. Output can be found in the Console window.

(5 points possible)

## Lab Question 1

**At the beginning of the semester:**

1a. What percent of the time, on average, were underclassmen happy? (round to one decimal place)

**Help**

**Answer:** 79.7

1b. What percent of the time, on average, were upperclassmen happy? (round to one decimal place)

**Answer:** 78.3

**Report test results, rounded to 3 decimal places:**

1c. t-statistic=

**Answer:** 0.423

1d. p-value=

**Answer:** 0.675

1e. We should

fail to reject the null hypothesis that there is no difference in happiness between under- and upper-classmen at the beginning of the semester.

Hide Answer

*You have used 0 of 2 submissions*

(5 points possible)

## Lab Question 2

2a. How many students were in this analysis?

**Answer: 214**

2b. The average change in happiness was 1.27%. Was this an increase or decrease over the semester?

**Answer: Decrease**

**Report test results, rounded to 3 decimal places:**

2c. t-statistic=

**Answer: 1.684**

2d. p-value=

**Answer: 0.094**

2e. We should

fail to reject the null hypothesis that there is no change in happiness over the semester.

Hide Answer

*You have used 0 of 2 submissions*

(3 points possible)

*What were the shapes of these distributions?*

### Lab Question 1

3a. The distribution of underclassmen happiness was \_\_\_\_\_.

left-skewed

3b. The distribution of upperclassmen happiness was \_\_\_\_\_.

left-skewed

### Lab Question 2

3c. The distribution of happiness difference scores was \_\_\_\_\_.

nearly Normal but with a slight positive skew

### EXPLANATION

[Hide Answer](#)*You have used 0 of 2 submissions*[Help](#)

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