Courseware Course Info **Discussion Syllabus Download R and RStudio R Tutorials** Readings **Contact Us Progress** Office Hours

Analyze the Data

## **Primary Research Question**

How long do animals stay in the shelter before they are adopted?

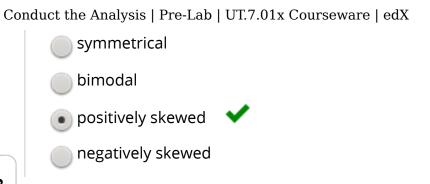
## Conduct the Analysis in R

- 1. Type or copy the script from 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.

(1/1 point)

How would you describe the shape of the distribution of *daystoadopt*?

1 of 6 11/24/2014 02:52 PM



Correct. Several animals spent very little time in the shelter prior to adoption, and as daystoadopt grew, the number of animals in each bar becomes less and less. Thus, the histogram peaks to the left with a relatively long tail to the right; this is a positively-skewed distribution.

Final Check Save Hide Answer You have used 1 of 2 submissions

(1/1 point)

Which measures of center and spread should you report for this data?

median and IQRmean and standard deviation

Correct. The median and IQR are the appropriate measures of center and spread for a highly skewed distribution, as they are not as distorted by the skew as mean and standard deviation.

2 of 6 11/24/2014 02:52 PM

Check

**Hide Answer** 

(2/2 points)

Enter numerical values for the following:

Help

Center=

13

13

Spread=

30

30

**Show Answer** 

You have used 2 of 2 submissions

(2/2 points)

It looks like one adopted animal spent much more time in the shelter than the others.

How many days was this animal in the shelter?

211

211

Help

Answer: 211

What was the z-score for this particular animal? Round to the nearest ONE decimal places.

5.1

5.1

Answer: 5.1

You have used 1 of 2 submissions **Hide Answer Final Check** Save

(1/1 point)

Why should we NOT report a z-score for this animal, even though we can calculate one?

- A z-score should only be used for distributions of height and weight.
- This animal is an outlier.
- 🕟 The distribution is skewed. 🛛 🗸
- The variable is categorical, not quantitative.

Correct. z-scores are calculated based upon mean and standard deviation, which are highly influenced by skewness and therefore misleading. As a result, the z-score is also misleading.

Help

**Hide Answer** 

You have used 2 of 2 submissions



EdX offers interactive online classes and MOOCs from the world's best universities. Online courses from MITx, HarvardX, BerkeleyX, UTx and many other universities. Topics include biology, business, chemistry, computer science, economics, finance, electronics, engineering, food and nutrition, history, humanities, law, literature, math, medicine, music, philosophy, physics, science, statistics and more. EdX is a non-profit online initiative created by founding partners Harvard and MIT.

© 2014 edX, some rights reserved.

5 of 6 Terms of Service and Honor Code 11/24/2014 02:52 PM

 $\textbf{About}^{\frac{1}{2}} \overset{\text{def}}{\text{coimpany}} \overset{\text{en}}{\text{follow}} \overset{\text{def}}{\text{coimpany}} \overset{\text{$ 

About

**T**witter

News

**F** Facebook

Contact

Meetup

FAQ

n LinkedIn

edX Blog

Google+

Donate to edX

Jobs at edX

6 of 6 11/24/2014 02:52 PM