

Feedback — Week 3 Quiz

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Thank you. Your submission for this quiz was received.

You submitted this quiz on **Tue 17 Mar 2015 3:53 PM PDT**. You got a score of **20.00** out of **20.00**.

Question 1

We take a random sample of individuals in a population and identify whether they smoke and if they have cancer. We observe that there is a strong relationship between whether a person in the sample smoked or not and whether they have lung cancer. We claim that the smoking is related to lung cancer in the larger population. We explain we think that the reason for this relationship is because cigarette smoke contains known carcinogens such as arsenic and benzene, which make cells in the lungs become cancerous.

Your Answer	Score	Explanation
<input checked="" type="radio"/> This is an example of an inferential data analysis.	✓ 4.00	
<input type="radio"/> This is an example of a predictive data analysis.		
<input type="radio"/> This is an example of a mechanistic data analysis.		
<input type="radio"/> This is an example of an descriptive data analysis.		
Total	4.00 / 4.00	

Question 2

What is the most important thing in Data Science?

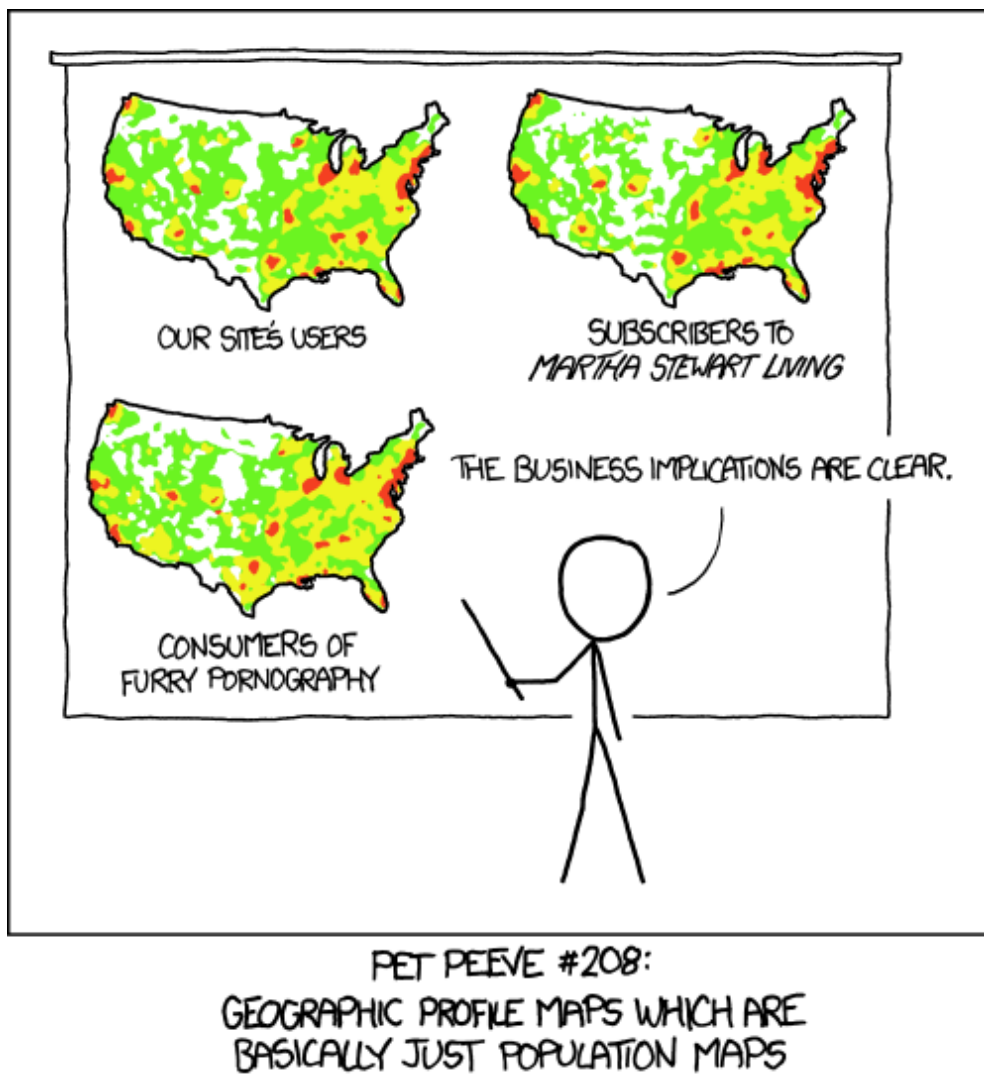
Your Answer	Score	Explanation
<input type="radio"/> Working with large data sets.		
<input type="radio"/> Hacking skills.		
<input type="radio"/> Using the right software.		

☐ The question you are trying to answer. ✓ 4.00

Total 4.00 / 4.00

Question 3

If the goal of a study was to relate Martha Stewart Living Subscribers to Our Site's Users based on the number of people that lived in each region of the US, what would be the potential problem?



[Link to image](#)

Source: <http://xkcd.com/1138/>

Your Answer

Score

Explanation

☐ There would be confounding because the number of people that live in an area is related to both Martha Stewart Living ✓ 4.00


Subscribers and Our Site's Users.

- ☐ We would be performing inference on the relationship between Martha Stewart Living Subscribers and Our Site's Users.
- ☐ We couldn't be sure whether subscribing to Martha Stewart Living causes people to be Users of Our Site or the other way around.
- ☐ We wouldn't be able to calculate descriptive statistics on Our Site's Users.

Total	4.00 /
	4.00

Question 4

What is an experimental design tool that can be used to address variables that may be confounders at the design phase of an experiment?

Your Answer	Score	Explanation
<input type="radio"/> Taking a convenience sample.		
<input type="radio"/> Using all the data you have access too.		
<input type="radio"/> Data cleaning.		
<input checked="" type="radio"/> Stratifying variables.	 4.00	
Total	4.00 / 4.00	

Question 5

What is the reason behind the explosion of interest in big data?

Your Answer	Score	Explanation
<input type="radio"/> Technologies like Hadoop and Map Reduce started the big data era.		
<input type="radio"/> There have been massive improvements in statistical analysis techniques.		

☒ The price and difficulty of collecting and storing data has dramatically dropped. ✓ 4.00

☐ We recently discovered ways to use data to make predictions.

Total 4.00 / 4.00