Name(s)_____ Period _____ Date _____

Activity Guide - Digital Divide & Checking Assumptions

The "Digital Divide"

Perhaps one of the easiest assumptions to make, when looking at data collected online, is that it actually is a good representation of what the average person is thinking, doing, or cares about. Look through this report from Pew Research, which shows the large differences in access to technology, even in the modern day. Digital Divides 2015 (http://www.pewinternet.org/2015/09/22/digital-divides-2015/)

1. What is the "digital divide"?

2. What groups are overrepresented or underrepresented online as a result of the digital divide?

3. What was the most surprising piece of information or visualization you found in this report?

Identifying Assumptions in Data Analysis

When you use data to make decisions, you need to be careful to **identify your assumptions** and **reflect on how those assumptions impact your analysis.**

Pick one of the scenarios below. With a partner, respond to the questions you find there about the assumptions made to conduct that analysis.

Scenario	Data	Decision
A city would like to more efficiently locate potholes that need to be filled.	The city builds an app that allows residents to report potholes from their smartphone.	The city will use this app as the primary method of identifying potholes.
A news agency would like to predict the outcome of a coming election.	A social media company (e.g., Twitter) keeps track of how many times each candidate has been mentioned on the platform.	The news agency will use this data to predict the outcome of the election.
A state government is trying to determine which issues are most important for the upcoming year.	The government creates an online survey where citizens can vote for the issue they care most about.	The government will use the results of this survey to help prioritize issues in the coming year.
A chef is deciding where to open a new restaurant in the city.	A restaurant reviews website keeps track of the areas of the city that receive the most restaurant reviews.	The chef will use the data to choose the location for opening a new restaurant.

Respond

Answer each question below for the scenario you chose.

1. What kind of trends or patterns might the decision makers in your scenario be observing in the data when they make their decision? How might they use these patterns to help make their decision?

2. The people making decisions in each instance have not taken into account the "digital divide." How has the assumption that all people have equal access to technology **possibly led their analysis astray?**

3. Are there any other assumptions being made in your scenario? How might they affect the final decision made? What additional data might you want to collect before making the decision for your scenario?

(Note: You can see the 2016 version of the report at http://www.pewinternet.org/2016/07/14/digital-divides-2016/)