Campaign Guidelines – Time Use

1. The Issue

There have been many reports lately about people spending a large amount of time interacting with technology and the Internet. This raises some questions about time use:

1) How do I spend my time?

2) Is there a difference between how females and males spend their time?

3) Do we spend too much time doing homework?

4) How is my time use similar or different to other Americans?

2. Objectives

Upon completing this campaign, students will have compared themselves to the U.S. population to find how they are similar to and/or different from other people in terms of time use. They will use single and multivariable plots, summary statistics, and frequency tables to find similarities and differences between groups of students, and between students and other residents of the United States.

3. Survey Questions (students will enter data for the activities in which they participate)

Consider Data: The categories below are similar to the categories found in the American Time Use Survey (ATUS), which provides nationally representative estimates of how Americans spend their time. Having similar variables allows students to compare the way they spend their time to the official ATUS dataset. Before students begin collecting data, it is important to discuss different activities in their day and how they might be classified. A class consensus of the meaning of the variables must be reached so that proper analysis and interpretations can be made.

Note: Students cannot double dip their time. For example, if they read during class, then those minutes spent reading do not count towards "read" but instead toward "school". Below are the definitions of some of the variables in the ATUS documentation.

socialize - This category includes face-to-face social communication and hosting or attending social functions.

consumer purchases - Time spent purchasing or renting consumer goods, regardless of the mode or place of purchase or rental (in person, online, via telephone, at home, or in a store) is classified into this category. Subcategories in this section include those for time spent purchasing gasoline, time spent purchasing groceries, time spent purchasing other food items, and time spent on all other shopping activities.

Note: The ATUS variable "leisure" combines many activities in which people might participate, such as watching television, reading, relaxing or thinking, playing computer, board, or card games, using a computer or the Internet for personal interest, playing or listening to music, and other activities, such as attending arts, cultural, and entertainment events.

We have opted to list specific leisure activities that high school students might be more likely to engage in and made them separate variables.

Prompt	Variable	Data Type
For which day are you collecting data?	day	ordinal category (integers 1-10)
What activities did you participate in?	activities	n/a
a. How many MINUTES did you sleep?	sleep	number
b. How many MINUTES did you spend eating/drinking?	meals	number
c. How many MINUTES did you spend in classes at school?	school	number
d. How many MINUTES did you spend doing homework?	homework	number
e. How many MINUTES did you spend working at a job?	work	number
f. How many MINUTES did you spend grooming yourself?	grooming	number

g. How many MINUTES did you spend traveling/commuting?	travel	number
h. How many MINUTES did you spend doing household chores?	chores	number
i. How many MINUTES did you spend watching television (including streaming)?	television	number
j. How many MINUTES did you spend playing video games?	videogames	number
k. How many MINUTES did you spend participating in sports/exercise/physical activity?	sports	number
l. How many MINUTES did you spend reading (not for class)?	read	number
m. How many MINUTES did you spend communicating (includes texting, emails, video and voice calls)?	communicate	number
n. How many MINUTES did you spend socializing (outside of class, in person)?	socialize	number
o. How many MINUTES did you spend on a spiritual activity?	spiritual	number

p. How many MINUTES did you spend purchasing items online or in a store?	purchases	number
q. How many MINUTES did you spend on hobbies/volunteering/leisure/extra-curricular activities (excluding sports and physical activity)?	extra	number
r. How many MINUTES did you spend on social media?	social_media	number
AUTOMATIC	location	lat, long
AUTOMATIC	time	time
AUTOMATIC	date	date

When should you take the survey? It is recommended that students keep a log of their time and submit one survey at the end of each day, accounting for every minute of each day of the campaign. It might be helpful to split the log into three intervals where students pause and think about what they did before school, after school and in the evening. Once the log is complete and accounts for all 1,440 minutes of their day, students should then submit the survey corresponding to that day.

How long should the campaign last? At least five days (maximum of ten days). Ideally, two of these days would include a weekend.

4. Motivation

Use the interactive graphic titled *How Men and Women Spend Their Time* found at:
https://flowingdata.com/2021/09/21/how-men-and-women-spend-their-days/

After the first day, monitor the data collection and ensure that each student has submitted a survey for Day 1. Continue monitoring for the rest of the campaign.

Discuss data collection issues. What makes it hard? Does this affect the quality of data?

5. Technical Analysis

RStudio and American time use interactive graphic

Single/Multivariable plots: histograms, bar graphs, scatterplots, etc.

Numerical summaries: mean, median, MAD, standard deviation

Frequency tables: One and two-way tables

6. Guiding Questions

1) On average, how long do students think they spend on homework?

2) Do males or females take longer to groom themselves?

3) Are there groups of students who spend their time similarly to one another?

7. Report

Students will complete a practicum in which they answer a statistical question based on the time use data collected.