Data entry errors can have catastrophic effects on the results of a statistical analysis. Even small data entry errors (such as typing a 4 instead of a 1) can completely change (and invalidate) statistical tests. Therefore, researchers check the accuracy of their data before they analyze it. The purpose of this assignment is to teach you how to check data.

You have two options for how to learn about data checking.
1) Participate in a 90-minute study, during which you will be taught how to check data
2) Read a journal article about data checking and answer 10 questions about the methodology and results

To receive credit for your work, you will be given a password. You must enter this password into the assignment on WebCampus called “HW D: Data Checking Bonus Assignment”

**Research Study**
To participate in the research study, send an email to datachecking@gmail.com to schedule your appointment. In the subject line of your email, write “Data Verification Study”. In the main body of your email, list ALL the times when you would be available to participate in the study. The study is 90 minutes long, and so do not list any time that is less than 90 minutes. We will compare your schedule with the schedules of our study administrators and then we will email you to let you know when your appointment is.

Here’s an example email:

```
Hi there,
I’d like to participate in the Data Verification Study. I’m available
  Monday 9:30 – 11:30am, 4 – 9pm
  Tuesday 4 – 9pm
  Wednesday 9:30 – 11:30am, 4 – 9pm
  Thursday 4 – 6pm
  Saturday 11am – 9pm
  Sunday 2pm – 6pm
Please let me know if you can fit me into your schedule and when my appointment is.
Thanks,
John
```

Once you have emailed us to ask for an appointment, be sure to check your email every two
days. Otherwise, you might miss our email that tells you when your appointment is.
Article Summary
To summarize the journal article, first read the article “Improving Data Accuracy: Selecting the Best Data Checking Technique.” It is available on WebCampus under “Course Content.”

Then answer ten questions about the article. Type your answers to these questions in a Word document before copying them into the survey. The survey is located at
https://unlvhospitality.az1.qualtrics.com//SE/?SID=SV_3Li00TzgMCiPPFr

The questions are:
1. Describe the data checking methods that were used in this study.
2. The paper describes “holistic” methods of checking data. What are these?
3. Describe the participants.
4. In this study, 25 data sheets were entered into the computer, and participants checked that these entries were done correctly. Describe the data sheet.
5. What was the estimated power for the ANOVA? Is that good or bad?
6. What did the paper find regarding the mean time to complete the data checking? Were these means significantly different? (answer yes or no and explain how you figured that out.)
7. What did the paper find regarding the proportion of the participants who had perfect data? Were these proportions significantly different? (answer yes or no and explain how you figured that out)
8. What did the paper find regarding the mean number of errors per participant? Were these means significantly different? (answer yes or no and explain how you figured that out)
9. What did the paper find regarding evaluations of the data checking methods? Were these means significantly different? (answer yes or no and explain how you figured that out)
10. Which data checking technique does the paper recommend and why?

If you have any questions about the article summary, send an email to datachecking@gmail.com. In the subject line of your email, write “Article Summary Question”.

The Data Verification Study is being run by your instructor, Dr. Kim Barchard. It is important that students do not feel pressured to select one of these options over the other. Therefore, we have designed this assignment so that Dr. Barchard will never know which of these two options you selected:

- If you participate in the study, a research assistant will administer the session.
- If you send an email to datachecking@gmail.com, a research assistant will read it.
- If you have a question or concern that cannot be answered by the research assistant, they will ask Dr. Barchard about it without revealing your identity.