“Instructions for the computing assignment worth 20% of your final grade

Overview

Materials that must be used in the assignment, these are provided on moodle

\*A pair of datasets for country 1 and country 2. Looking at the datasets you will notice that each student has been given a sample, students must use their own sample.   
  
\*An automatic dataset summarizer.   
  
\*Instructions for checking that you have properly found your sample, students must use their sample.

Students must submit a word file AND an excel file to moodle

­\*The word file needs to be submitted to the Turnitin link, the word file needs a cover page and the answers to 9 questions given in full detail later in this document (pages 2 to 7) a vital part of answering the question is using the dataset and the dataset summarizer.

\*The excel file needs to be submitted to the assignment dropbox, the excel file should have the students dataset for country 1 and summaries NOT made by the automatic dataset summarizer students need to summarize the dataset using PivotTables and the scatterplot. Instructions for submitting the excel file are given on page 8“

“Instructions for the Major part of assignment , the word file worth 18% of your final grade you submit to Turnitin.

Use the following as the cover page for the word file

“Title: semester 1, 2020 BUS105 computing assignment”  
“Name:”  
“Student number:”  
“Sample: ”

“(students must use the dataset provided each student has been allocated their own sample)”

Overview

You need to submit a word file with the answers to 9 questions the first 8 are about the dataset the last question is a paraphrasing task (refer to pages 3 to 6)

You will use your dataset and the automatic dataset summarizer to get the descriptive statistics that are used questions 1 to 5 and the inferential statistics that are used in question 6 to 8.  
to check you have correctly obtained your dataset check both p-values are correct when you investigate both categorical variables (question 6)

The word count can be less than 1500 words if you are giving answers that demonstrate you have understood the material.

Summary of the dataset (question 1 to 8 given on pages 3 to 6 are about the dataset)

Suppose market research company XYZ did a survey in two different countries. The survey was designed to gather basic information about some customers and their opinion about TV model XYZ

The survey questions were

“What is your Income?”  
“What is your gender?”  
“How much are you willing to spend on a TV?”  
“Would you buy TV model XYZ?”

So there are two datasets, one for each country   
  
One dataset is the survey answers country 1   
One dataset is the survey answers country 2

students MUST use the datasets they are given, They CANNOT use datasets they make themselves or take from other sources.

Each of the datasets consists of the following variables,

income? : a quantitative variable   
Gender?: a categorical variable   
Amount you would spend? : A quantitative variable, the amount they would spend on a TV   
Would you buy?: A categorical variable, would they buy TV model XYZ

Question 1   
a) Just using the information for Country 1

i) Paste in descriptive sample statistics that let you investigate the relationship between the variables “Gender?” and “Would you buy?” using the sample

ii) Use the output in part (i) to describe the relationship between the two variables, your discussion must use one of the following sample statistics (choose one)

Difference between sample means -  
Difference between sample proportions -   
correlation coefficient *r*

b) Just using the information for Country 2

i) Paste in descriptive sample statistics that let you investigate the claim there is a relationship between the variables “Gender?” and “Would you buy?”

ii) Use the output in part (i) to describe the relationship between the two variables, your discussion must use one of the following sample statistics (chose one)

Difference between sample means -  
Difference between sample proportions -   
correlation coefficient *r*

c) Compare the results in parts (a) and (b)

Question 2

a) Just using the information for country 1

i) Paste in descriptive sample statistics that let you investigate the relationship between the variables “Would you buy?” and “amount you would spend?” using the sample

ii) Use the output in part (i) to describe the relationship between the two variables, your discussion must use one of the following sample statistics (chose one)

Difference between sample means -  
Difference between sample proportions -   
correlation coefficient *r*

b) Just using the information for Country 2

i) Paste in descriptive sample statistics that let you investigate the claim there is a relationship between the variables “would you buy?” and “amount you would spend?”

ii) Use the output in part (i) to describe the relationship between the two variables, your discussion must use one of the following sample statistics

Difference between sample means -  
Difference between sample proportions -   
correlation coefficient *r*

c) Compare the results in parts (a) and (b)

Question 3

a) Just using the information for Country 1

i) Paste in descriptive sample statistics and a graph that let you investigate the relationship between the variables “Income?” and “Amount you would spend?” using the sample

ii) Use the output in part (i) to describe the relationship between the two variables, your discussion must use one of the following sample statistics

Difference between sample means -  
Difference between sample proportions -   
correlation coefficient *r*

b) Just using the information for Country 2

i) Paste in descriptive sample statistics and a graph that let you investigate the claim there is a relationship between the variables “Income?” and “Amount you would spend?” using the sample

ii) Use the output in part (i) to describe the relationship between the two variables, your discussion must use one of the following sample statistics

Difference between sample means -  
Difference between sample proportions -   
correlation coefficient *r*

c) Compare the results in parts (a) and (b)

Question 4

1. Considering all people in the country 1 dataset
2. What is sample size *n*
3. What is the sample proportion of people that would buy the model XYZ TV
4. Use the answers in part (i) and (ii) to find the zscore of the sample proportion if you assume the population proportion *p*=0.5
5. Considering all people in the country 2 dataset
6. What is sample size *n*
7. What is the sample proportion of people that would buy the model XYZ TV
8. Use the answers to parts (i) and (ii) to find zscore of the sample proportion if you assume the population proportion *p*=0.5

Question 5

Just using the country 1 data set

1. Just considering the people that would buy the TV

i) What is sample size, sample mean and sample standard deviation of income

ii) find a 95% confidence interval for income

1. Just considering the people would not buy the TV

i) What is sample size, sample mean and sample standard deviation of income

ii) find a 95% confidence interval for income

Question 6

a) Just using the information for country 1

i) Paste in inferential statistics that measure evidence for the claim there is a relationship between the variables “Gender?” and “Would you buy?” if you consider the whole population

ii) Make suitable comments about the output in part (i)

b) Just using the information for country 2

i) Paste in inferential statistics that measure evidence for the claim there is a relationship between the variables “Gender?” and “Would you buy?” if you consider the whole population

ii) Make suitable comments about the output in part (i)

c) Compare the results in parts (a) and (b)

Question 7

a) Just using the information for country 1

i) Paste in computer output that measure evidence for the claim there is a relationship between the variables “would you buy?” and “amount you would spend?” if you consider the whole population

ii) Make suitable comments about the output in part (i)

b) Just using the information for country 2

i) Paste in computer output that measures evidence for the claim there is a relationship between the variables “would you buy?” and “amount you would spend?” if you consider the whole population

ii) Make suitable comments about the output in part (i)

c) Compare the results in parts (a) and (b)

Question 8

a) Just using the information for country 1

i) Paste in computer output that measures evidence for the claim there is a relationship between the variables “Income?” and “amount you would spend?” if you consider the whole population

ii) Make suitable comments about the output in part (i)

b) Just using the information for country 2

i) Paste in computer output that measures evidence for the claim there is a relationship between the variables “Income?” and “amount you would spend?” if you consider the whole population

ii) Make suitable comments about the output in part (i)

c) Compare the results in parts (a) and (b)

Question 9

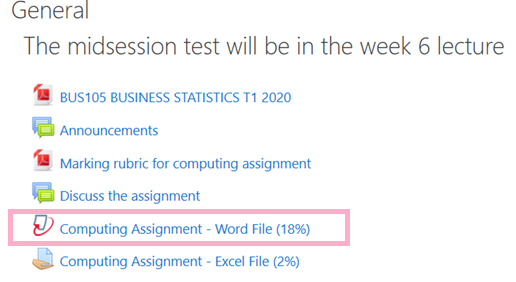
You need to pick ONE of the following options for question 9, Your answer should be about 300 words long

OPTION 1   
Give a brief summary of at least on the major ideas in the following power point available from   
<https://app.box.com/s/0eddpa7wut2kdae4nmkynrz0fgfdcrbg>

Do not cut and paste text and use a computer to randomly change the words   
  
OPTON 2

Briefly discuss the main message in the following sample report available from   
<https://app.box.com/s/ael5pciel84wnveu3z4bd74ro0v2djgn>  
(you need to click download, logging in will not work) and discuss how it is communicated. Do not cut and paste text and use a computer to randomly change the words

Upload the word file to the Turnitin link on moodle



Instructions for the excel file

This is worth 2% of your final grade   
you have to use the excel commands discussed below and not the dataset summarizer  
However you should check that your summaries are the same as the output from the dataset summarizer you used in the word file.  
 If you have different information you will get at most 1 out of 2

You need to cut and paste just your dataset into a new excel file and follow the 4 instructions below, DO NOT use a cover page for the excel file, you must check that you have the correct sample

1. For country 1

Use excel PivotTable commands to find appropriate sample statistics that let you investigate the relationship between the fields (variables) “Gender?” and “Would you buy?”

1. For country 1   
   Use excel PivotTable commands to find appropriate sample statistics that let you investigate the relationship between the fields (variables) “Would you buy?” and “Amount you would spend?”
2. For country 1   
   Use excel commands to make a graph that lets you investigate the relationship between the fields (variables) “Income?” and “Amount you would spend?”

Upload the excel file with the pivot tables and scatterplot to the assignment dropbox

