

STAT 1202 – Assignment #3 Option 2

Correlation

In this assignment you will examine the relationship among selected variables (measured at the interval or ratio level) by calculating the Pearson correlation coefficient (r) for each relationship. Before generating your results, consider how you think these variables might be related to one another; in other words, consider a research hypothesis. You will create two tables: (1) a summary of the relationship associated with variables you have selected, and (2) a comparison of at least two sub-groups based on another variable on the relationships selected in step one. After creating the tables, you will write a brief description of your findings, and offer an interpretation of the results you have generated.

Here are your specific tasks:

1. Select at least three interval or ratio variables from your chosen data set. For two of these variables, state a research hypothesis concerning what you believe may be the nature of the relationship between them.
2. Using all the variables you selected, create a table showing the relevant descriptive and test statistics for your relationships.
3. Select one of the nominal or weak ordinal variables from the data set that you wish to use to compare the sub-groups on each of the variables from the first table (alternatively, you could also use an interval or ratio variable that you first grouped as your variable for comparison, but be sure to include a description of how you grouped the variable before using it in the second table).
4. Create a table comparing the subgroups in the nominal/ordinal variable on each of the relationships you examined in the first table.
5. Write a brief (i.e., half a page) description of your results based on the two tables you have created. Be sure to make specific reference to each of the tables in this written description, highlighting aspects of particular interest, and offering an interpretation of the results. Be sure to include a comment on whether or not your research hypothesis has been supported.

Be sure that your tables are complete – properly labelled, titled, and including all of the relevant descriptive statistics. Your two tables and a brief summary description **must not** exceed two pages in overall length.

Other Details:

Groups of 1-3 (sign up on BlackBoard even if you are doing the assignment by yourself)

Total Value 15% of your final grade

Submit via the Assignment 3 Dropbox on BlackBoard (no emailed assignments)

Due Date: April 18, 2019 by 11:59pm

Examples of tables to be generated for Assignment #3

Table 1 – summary of relationships among interval or ratio level measures:

Table 1 Relationship between Mean Number of Minutes Spent on Previous Week Day in Selected Activities and Time Pressure Index for Young, Employed Persons with Children			
Activity Category	Time Pressure Index		
	n	r	p
Paid Employment	521	.052	.232
Domestic Chores	521	.097	.026
Leisure Time	521	-.192	<.001

Table 2 – comparison of nominal variable on the variables used in Table 1:

Table 2 Comparison of Young Employed Persons with Children by Gender on the Relationship between Time Spent on Previous Day in Selected Activities and Time Pressure Index						
Activity Category	Time Pressure Index					
	Males			Females		
	n	r	p	n	r	p
Paid employment	338	.158	.004	183	-.013	.859
Domestic chores	338	-.030	.580	183	.152	.040
Leisure time	338	-.153	.004	183	-.176	.024