

Quiz 1 Topics 1-4_

Due Jun 16 at 7pm**Points** 100**Questions** 20**Available** Jun 2 at 8:33pm - Jun 16 at 7:46pm 14 days**Time Limit** None

Instructions

The Dataset used:

[College Dataset Data Dictionary.pptx](#) 

[college Dataset.csv](#) 

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	38 minutes	95 out of 100

Score for this quiz: **95** out of 100

Submitted Jun 16 at 10:13am

This attempt took 38 minutes.

Question 1

5 / 5 pts

Exploratory data analysis relies on the data to determine how the analysis proceeds.

Correct!☒ True☐ False

Question 2**5 / 5 pts**

Linear regressions and hypothesis testing never done as part of exploratory data analysis.

☐ True☒ False**Correct!****Question 3****5 / 5 pts**

Most data scientists get their data through broad Google searches.

☐ True☒ False**Correct!****Question 4****5 / 5 pts**

The first step in conducting research is to find data that is interesting.

☐ True

Correct!☒ False**Question 5****5 / 5 pts**

The research statement "This study proposes to conduct research about science programs in secondary schools in the United States" is a bad research statement because:

- ☐ It is too broad.
- ☐ Overall, the statement is not well defined.
- ☒ All the answers given.
- ☐ It is probably not realistic in terms of scope.

Correct!**Question 6****5 / 5 pts**

Which question is NOT a question you should use to evaluate your research project?

- ☐ Can I produce an insightful answer?
- ☒ Is it unique, i.e. can I make sure others will not be able to duplicate it?
- ☐ What is the cost?

Correct!

☐ Will I be able to explain the results?

Question 7

5 / 5 pts

Given the following problem statement/research question, which of the following is NOT a sub-problem of the original statement/question?

The purpose of this study will be to analyze the motets of Palestrina written between 1575 and 1580, discover their distinctive contrapuntal characteristics, and to analyze the same characteristics in the motets of William Byrd written between 1592 and 1597 (to determine what a comparative study of these two analyses may reveal).

☐ To analyze the motets of Palestrina written between 1575 and 1580 and discover their distinctive contrapuntal characteristics.

☐ None of the answers given.

Correct!

☒ To compare the motets of Palestrina written between 1575 and 1580 with those written by today's composers.

☐ To consider the motets of William Byrd written between 1592 and 1597 in order to discover their distinctive contrapuntal characteristics.

Question 8**5 / 5 pts**

It is necessary to understand why or how data/information is organized in order to obtain data required to conduct research.

Correct!☒ True☐ False**Question 9****5 / 5 pts**

The search for data is very straightforward, just ask a research question and the required data will be readily available.

Correct!☐ True☒ False**Question 10****5 / 5 pts**

Once a research question has been asked there will never by any reason to change it.

☐ True

Correct!☒ False**Question 11****5 / 5 pts**

We should always have a good idea what our conclusions will be before we ever enter the data processing pipeline.

☐ True**Correct!**☒ False**Question 12****5 / 5 pts**

We really want our data to be "tidy," meaning:

☐ Each separate record or observation in its own row☐ Each separate variable in its own column**Correct!**☒ All of the answers given☐ Each type of observational unit in its own table, e.g. department in an organization

Question 13**5 / 5 pts**

Raw data has not had any type of processing or pre-processing done on it.

Correct!☒ True☐ False**Question 14****5 / 5 pts**

It isn't necessary to record the steps taken to process data.

Correct!☐ True☒ False**Question 15****5 / 5 pts**

Once you have a data set there isn't any reason to know anything else about the data.

Correct!☐ True☒ False

Question 16**0 / 5 pts**

Which of the following commands allows you to look at the variable types of all of the variables in your dataframe?

☐ D: vartypes()☒ A: str()☐ E: All of the above☐ C: A and B☐ B: glimbs()

You Answered

Correct Answer

Question 17**5 / 5 pts**

Go to the website <http://www-bcf.usc.edu/~gareth/ISL/data.html> and download the data set College.csv and read it into R as “college,” i.e. `college <- read.csv(“College.csv”)` to answer the following questions.

Using the R command `str()` how many observations and variables are there in this data set?

☒ 777 observations of 19 variables

Correct!

- ☐ 1545 observations of 8 variables
- ☐ 2000 observations of 27 variables
- ☐ 202 observations of 5 variables

Question 18**5 / 5 pts**

Go to the website <http://www-bcf.usc.edu/~gareth/ISL/data.html> and download the data set College.csv and read it into R as “college,” i.e. `college <- read.csv(“College.csv”)` to answer the following questions.

Using the `summary()` command, what is the maximum number of applications any college received?

- ☐ 2003
- ☒ 48094
- ☐ 3624
- ☐ 1558

Correct!**Question 19****5 / 5 pts**

Go to the website <http://www-bcf.usc.edu/~gareth/ISL/data.html> and download the data set College.csv and read it into R as “college,” i.e.

college <- read.csv("College.csv") to answer the following questions.

Of all the colleges, what was the average number of applications accepted?

☐ 1110

☐ 604

☐ 2424

☒ 2019

Correct!

Question 20

5 / 5 pts

In order to read data into R, you must download it onto your computer first before reading it in.

☐ True

☒ False

Correct!

Quiz Score: **95** out of 100