Feedback — Week 1 Quiz

Help Center

Thank you. Your submission for this quiz was received.

You submitted this quiz on **Sun 13 Dec 2015 1:43 PM PST**. You got a score of **10.00** out of **10.00**.

Question 1

Suppose I conduct a study and publish my findings. Which of the following is an example of a replication of my study?

Your Answer		Score	Explanation
An investigator at another institution conducts a study addressing a different scientific question and publishes her findings.			
An investigator at another institution conducts a study addressing the same question, collects her own data, analyzes it separately from me, and publishes her own findings.	✔	1.00	
I take my own data, analyze it again, and publish new findings.			
I give my data to an independent investigator at another institution, she analyzes the data and gets the same results as I originally obtained.			
Total		1.00 / 1.00	

Question 2

Which of the following is a requirement for a published data analysis to be reproducible?

Your Answer	Score	Explanation
The data analysis is conducted using R.		

○ The analysis is conducted on a variant of the Unix operating system.			
○ The investigator makes available his computer, on which the analysis was originally conducted.			
◉ The full computer code for doing the data analysis is made publicly available.	✔	1.00	
Total		1.00 / 1.00	

Question 3

Which of the following is an example of a reproducible study?

Your Answer		Score	Explanation
○ The study's analytic data are publicly available, but the computer code is not.			
○ The study's analytic data and computer code are not publicly available, but the study was simple enough to be repeated by an independent investigator.			
◉ The study's analytic data and computer code for the data analysis are publicly available. When the code is run on the analytic data, the findings are identical to the published results.	✔	1.00	
○ The study's original authors re-run their computer code on their analytic data and confirm publicly that the findings match those of the published results.			
Total		1.00 / 1.00	

Question 4

Which of the following is a reason that a study might NOT be fully **replicated**?

Your Answer	Score	Explanation
○ The original study was published in a high impact journal and is considered authoritative.		

○ The original study was conducted by a well-known investigator.		
◉ The original study was very expensive and there is no money to repeat it in a different setting.	✔	1.00
○ The original investigator does not want to make the analytic data available.		
Total		1.00 / 1.00

Question 5

Which of the following is a reason why publishing **reproducible research** is increasingly important?

Your Answer	Score	Explanation
○ Most studies today are small-scale and easily replicated.		
◉ New technologies are increasing the rate of data collection, creating datasets that are more complex and extremely high dimensional.	✔ 1.00	
○ Computing power is limited today, making it difficult to apply sophisticated statistical methods.		
○ The statistical methods for most studies can be accurately described using plain language.		
Total	1.00 / 1.00	

Question 6

What is the role of *processing code* in the research pipeline?

Your Answer	Score	Explanation
○ It conducts the statistical analysis of the primary outcome.		
○ It transforms the computational results into figures and		

tables.		
○ It transforms the analytic data into computational results.		
◉ It transforms the measured data into analytic data.	✔	1.00
Total		1.00 / 1.00

Question 7

Which is a goal of literate statistical programming?

Your Answer		Score	Explanation
◉ Combine explanatory text and data analysis code in a single document.	✔	1.00	
○ Ensure that data analysis documents are always exported in PDF format.			
○ Separate figures and tables from other data analytic summaries.			
○ Require that data analysis summaries are always written in LaTeX.			
Total		1.00 / 1.00	

Question 8

What does it mean to *weave* a literate statistical program?

Your Answer		Score	Explanation
○ Transform a literate program from R to python.			
○ Compress the literate program so that it takes up less space.			
◉ Transform the literate program into a human readable document.	✔	1.00	

○ Transform the literate program into a machine readable code file.			
Total		1.00 / 1.00	

Question 9

Which of the following is required to implement a literate programming system?

Your Answer		Score	Explanation
○ A web server for publishing documents.			
○ A cloud-based computing service for running computations.			
◉ A documentation language like LaTeX.	✔	1.00	
○ A Unix-based computer system.			
Total		1.00 / 1.00	

Question 10

What is one way in which the knitr system differs from Sweave?

Your Answer		Score	Explanation
○ knitr was developed by Friedrich Leisch.			
◉ knitr allows for the use of markdown instead of LaTeX.	✔	1.00	
○ knitr is written in python instead of R.			
○ knitr lacks features like caching of code chunks.			
Total		1.00 / 1.00	