

Feedback — Week 1 Quiz

[Help](#)

Thank you. Your submission for this quiz was received.

You submitted this quiz on **Mon 5 Jan 2015 6:53 PM PST**. You got a score of **9.00** out of **10.00**. You can [attempt again](#), if you'd like.

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
<input type="radio"/> An investigator at another institution conducts a study addressing a different scientific question and publishes her findings.		
<input type="radio"/> 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.		
<input checked="" type="radio"/> I give my data to an independent investigator at another institution, she analyzes the data and gets the same results as I originally obtained.	✖ 0.00	
<input type="radio"/> I take my own data, analyze it again, and publish new findings.		
Total	0.00 / 1.00	

Question 2

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

Your Answer	Score	Explanation
-------------	-------	-------------

- ☐ The investigator's final publication is made available free of charge.
- ☐ The investigator makes available his computer, on which the analysis was originally conducted.
- ☐ The analysis is conducted on a variant of the Unix operating system.
- ☒ 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 |
|--|--------|-------------|
| <input type="radio"/> 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. | | |
| <input type="radio"/> The study's analytic data are publicly available, but the computer code is not. | | |
| <input checked="" type="radio"/> 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 | |
| <input type="radio"/> 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
<input checked="" type="radio"/> The original study was very expensive and there is no money to repeat it in a different setting.	✓ 1.00	
<input type="radio"/> The original study had null findings.		
<input type="radio"/> The original investigator does not want to make the analytic data available.		
<input type="radio"/> The original study was published in a high impact journal and is considered authoritative.		
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
<input type="radio"/> The statistical methods for most studies can be accurately described using plain language.		
<input type="radio"/> Computing power is limited today, making it difficult to apply sophisticated statistical methods.		
<input type="radio"/> Most studies today are small-scale and easily replicated.		
<input checked="" type="radio"/> New technologies are increasing the rate of data collection, creating datasets that are more complex and extremely high dimensional.	✓ 1.00	
Total	1.00 / 1.00	

Question 6

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

Your Answer	Score	Explanation
<input checked="" type="radio"/> It transforms the measured data into analytic data.	✓ 1.00	
<input type="radio"/> It transforms the analytic data into computational results.		
<input type="radio"/> It conducts the statistical analysis of the primary outcome.		
<input type="radio"/> It transforms the computational results into figures and tables.		
Total	1.00 / 1.00	

Question 7

Which is a goal of literate statistical programming?

Your Answer	Score	Explanation
<input type="radio"/> Separate figures and tables from other data analytic summaries.		
<input type="radio"/> Ensure that data analysis documents are always exported in PDF format.		
<input checked="" type="radio"/> Combine explanatory text and data analysis code in a single document.	✓ 1.00	
<input type="radio"/> 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
<input type="radio"/> Compress the literate program so that it takes up less space.		
<input type="radio"/> Transform the literate program into a machine readable code file.		
<input type="radio"/> Transform a literate program from R to python.		
<input checked="" type="radio"/> Transform the literate program into a human readable document.	✓ 1.00	
Total	1.00 / 1.00	

Question 9

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

Your Answer	Score	Explanation
<input checked="" type="radio"/> A documentation language like LaTeX.	✓ 1.00	
<input type="radio"/> A web server for publishing documents.		
<input type="radio"/> A program that views PDF files.		
<input type="radio"/> 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
<input type="radio"/> knitr lacks features like caching of code chunks.		
<input checked="" type="radio"/> knitr allows for the use of markdown instead of LaTeX.	✓ 1.00	
<input type="radio"/> knitr is written in python instead of R.		
<input type="radio"/> knitr was developed by Friedrich Leisch.		
Total	1.00 / 1.00	

