

September 29, 2018

Replication Crisis Spurs Reforms

Article-Based Observation: Q

Directions: Read the article "[Replication crisis spurs reforms](#)" and then answer these questions:

Making initial connections:

1. Based on the article's title, what background knowledge, if any, do you have about the topic?

2. What would you like to learn from the article?

Summarizing and citing evidence and structure:

3. What specialized terms are used in the article, and what do they mean?

4. What is the main idea of the article?

5. What evidence does the article provide to support its central idea?

Integrating and evaluating sources:

6. Scientists present their detailed results in primary research articles in scientific journals and/or presentations or posters at scientific conferences. *SN* and other news outlets then report some of those results for a wider audience. Citations of the primary research studies are listed and linked at the end of the *SN* article online. What specific scientists, primary research studies, scientific conference presentations and other sources does the *SN* article quote, mention or cite?

7. How well does the *SN* article explain the scientific work? Does it clearly explain the purpose, methods, results and implications of the scientific work? Does it leave out some details?

8. Compare and contrast the *SN* article to a second *SN* article that also covers replication research. What are important similarities and differences between the sources? What new things have you learned from fitting all of the information together? (Ask your teacher for the log in credentials: <https://www.sciencenews.org/snhs/search>.)

Analyzing content:

9. How could you visually present some of the ideas or results discussed in “[Replication crisis spurs reforms](#)”?

10. Why should people care about the article? What is the importance, impact or significance of the article for you, your community or the scientific community?

11. What related work might you or other students be able to do, perhaps as a science fair project?

12. Circle or highlight scientific processes that are covered in the article. Such processes may include asking questions and defining problems; developing and using models; planning and carrying out investigations; analyzing and interpreting data; using mathematics and computational thinking; constructing explanations and designing solutions; engaging in argument from evidence; and obtaining, evaluating, and communicating information. Cite an example from the text for one of these processes.

13. Explain how one of the following concepts is represented in the article: patterns; cause and effect; scale, proportion or quantity; systems and system models; matter and energy; structure and function; rates of change and stability of a system.