High School Science Virtual Learning

Applied Biological Science
Source Validity and Covid-19

May 15, 2020

High School Forensic Science
Lesson: May 15, 2020

Objective/Learning Target:
Students will be able to explain characteristics of reliable and valid sources. They will then use this to determine source credibility regarding COVID-19 information.

1. What kinds of sources of scientific information would you assume are honest, reliable, or unbiased?

2. What kinds of sources would you assume are biased, not as reliable, or contain unverifiable information?

1. USUALLY… information coming from education sources (.edu websites), government agencies (.gov websites), and academic databases (like google scholar).

2. USUALLY… information coming from social media posts, non-cited sources, dated or old information, sources with a hidden or unknown author

Lesson Activity:

Directions: In this lesson, you will read through this article. It provides information on how to determine if a source of scientific information is credible or not. Answer the questions on the following slide that correspond with the article.

Link(s): Using Credible Sources

Practice

You will use the information from the activity on slide 5 to answer the following questions.

1. What is the difference between a primary source and secondary source?
2. Write 3 differences between a popular and scholarly article.
3. Give an example of a popular article source. Give an example of a scholarly article source.
4. Which type of source is best for a high school science student to use?
5. What 5 characteristics does the article say you should evaluate a source based on? (CRAAP test)
6. Why is it important to cite your sources?

1. What is the difference between a primary source and secondary source? In a primary source, the author is reporting first hand information. This is usually the original publication of new data, results, and conclusions. A secondary source would be the analysis of this information. Usually it is the job of a secondary source to interpret the primary sources information to make it easier to understand for everyone.

2. Write 3 differences between a popular and scholarly article. A scholarly article is going to be much more specific, contain new information and data, and be intended for academic readers. A popular source is written for general readership, is not peer-reviewed, and presents a broader range of information in a shorter format.

3. Give an example of a popular article source. Give an example of a scholarly article source. Popular: Newsweek magazine   Scholarly: Nature

4. Which type of source is best for a high school science student to use? In general, scholarly articles are going to contain the most credible information. They are much more in-depth and difficult to read, but contain the most credible information. However, you should always use a source that you understand.

5. What 5 characteristics does the article say you should evaluate a source based on? (CRAAP test) Currency, Relevance, Author, Accuracy, Purpose.

6. Why is it important to cite your sources? Citations proved credibility to your information. Citations also provide readers a reference material to further their reading and studying of a topic.

Additional Perspectives on Article Credibility

1. [Infographic: The Best And Worst Science News Sites](#)
2. [Deciding Whether a Source is Reliable](#)
3. [Is My Source Credible?](#)

More Practice: COVID-19 Article Credibility

Using this guide, determine the credibility of an article of your choice that talks about something related to the COVID-19 pandemic.

Article Analysis

Remember: to determine if an article is credible or not, use the following 5 characteristics. For more guidance and supporting questions, use this information.

1. Currency
2. Relevance
3. Author
4. Accuracy
5. Purpose

The information source I will be analyzing is linked [HERE](). It is information from the pharmacy chain, Walgreens.

Currency: There is no date given for this particular webpage. I can assume that is is relatively current based on the 2020 copyright date at the bottom of the page. It is concerning though, that no update date is given.

Relevance: The information on the page is all very focused on the topic of Covid-19 symptoms, treatment, and detection. It is written so common, everyday readers can understand all of the information present. Most likely, this article was written for the general public, not an academic or educational reader.

Author: No specific author is given. We could even assume that this large corporation used a few different authors to gather all of the information on the page. We could also assume due to the large number of people expected to read the article, that the information was written by someone who did their due diligence as they wrote it (but the sources and research behind each section of the article are not specifically stated).

Accuracy: The language and tone of the article seems unbiased and informational. Links to some additional outside sources are provided (CDC, NASP, Johns Hopkins). The information generally lines up with other published information on the topic. There is a disclaimer, however, indicating if the information on the site does not match with other sources they provided. This could indicate they are not updating their information as often as they could be.

Purpose: The information here in general looks like it is mostly to INFORM, which is good. It does also contain recommended products that are sold by Walgreens. They are a company that sells healthcare products, so their infomation is written to aid in people finding their products to use.

OVERALL: This is a decent secondary source. It might be better just to straight to the sources they list. But decent information, that is easy to read for the general population is presnt in this source.