

PSEUDOSCIENCE - EVALUATING EVIDENCE

KRISTY MORRISON (/USERS/KRISTY-MORRISON)

Pseudoscience - Evaluating Evidence

Purpose:

The purpose of this activity was to increase my grade 9 students' scientific literacy and research skills. I was finding that an increasing number of my students weren't able to apply critical thinking skills to things like astrology and make an informed, scientific opinion about the quality of the evidence presented when they were presented with an area of pseudoscience or a product "claim."

The Hook:

In the introduction to this project (first link below), I challenged students to think of an area of pseudoscience that they were familiar with (or they could choose from a list of topics that I generated) and to evaluate the quality of the evidence presented on the internet and in books. They then chose their topics (Part A).

The Body:

I worked closely with the school Teacher Librarian (his presentation on good sources is attached below) and spent two days in the library researching and finding sources. They had to find two "good" sources on their topic and two that weren't from as reliable of a source, summarize the information contained in the sources and create an APA citation for those sources (Part B).

In order to evaluate the quality of the sources, we used the CARP method (C- Currency, A- Authority, R - Reliability, P - Point of View).

We then had them evaluate their evidence as a whole and put together a supported opinion piece (Part C - we asked the Languages Department to help us with resources and tailored them to our needs). They shared this information as well as a brief summary about their opinion piece on a group slideshow (Pseudoscience Student Sharing).

The Assessment:

Students shared information about their topic with small groups in a round table format. I also ensured along the way that each student was keeping up with the required components.

If I were to do this again, instead of reading all of the opinion paragraphs myself, I would have conducted interviews with students in order to get verbal feedback on their understanding of the topic.

The Payoff:

Students had better results on subsequent evaluations in terms of thinking critically about sources and constructing and supporting opinions.

Overall the project was well received by students but was less so well received by my teaching team, as they saw it as one more thing to mark.

In the future, I would do less "formal" assessment and more informal assessment, such as interviews and peer evaluation.



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COMMENTS



leenfld1

November 19 at 11:00pm

Hello,

I'd like a closer look at the lesson but access is denied. Is it possible to be granted access?

Thanks,

Lee Brown

Permalink (/comment/372#comment-372)

RESOURCES

- Pseudoscience Outline - Evaluating Evidence (<https://drive.google.com/open>)
- Library Presentation on Reseach (<https://drive.google.com/open>)
- Pseudoscience Part A: Choose Your Topic (<https://drive.google.com/open>)
- Pseudoscience Part B: Evaluating Sources (<https://drive.google.com/open>)
- Pseudoscience Part C: Opinion Piece (<https://drive.google.com/open>)
- Pseudoscience Printable Rubric & Feedback (<https://drive.google.com/open>)
- Pseudoscience Task Checklist & Feedback Form (<https://drive.google.com/open>)
- Pseudoscience Student Sharing (<https://drive.google.com/open>)

 Pseudoscience Presentation for STAO Project Innovation (<https://docs.google.com/a/hdsb.ca/presentation/d/11mcCJkAVXPiQ2AYzyZ-dfwgn2k14oS4Owb1fekm0KVI/edit>)

ELEMENT

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