**E-Literacy**

***Evaluating online credibility***

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**Field Tested:** 12th grade Government, Watsonville High School, Watsonville, CA (Winter 2014)

**Module Type:** Classroom computer activity

**Duration:** one 2hr class session

**Key Materials:**

* Chrome books or small laptops with internet browser, and word processing software
* Computer projector

**Concepts:** Source Credibility, Academic Research In Social Sciences

**Skills:** Students will be exposed to the concept that not all internet websites and news articles are credible. Students will practice source evaluation.

**Common Core:**

* [CCSS.ELA-Literacy.RH.1](http://www.corestandards.org/ELA-Literacy/RH/11-12/1/)[1](http://www.corestandards.org/ELA-Literacy/RH/11-12/6/)[-12.1](http://www.corestandards.org/ELA-Literacy/RH/11-12/1/): cite textual evidence
* [CCSS.ELA-Literacy.RH.11-12.6](http://www.corestandards.org/ELA-Literacy/RH/11-12/6/): evaluate different view points
* [CCSS.ELA-Literacy.RH.11-12.7](http://www.corestandards.org/ELA-Literacy/RH/11-12/7/): integrate sources to address a question
* [CCSS.ELA-Literacy.RH.11-12.8](http://www.corestandards.org/ELA-Literacy/RH/11-12/8/): corroborate or challenge claims

**NGSS Practices**

* 8. Obtaining, evaluating and communicating information

# Overview:

Teachers conduct an activity where students practice evaluating sources using websites to highlight the importance of using unbiased, accurate, and reliable sources. In this lesson, students learn 1) a systematic approach for evaluating the credibility of internet sources 2) How to determine which sources to use for specific tasks, 3) How to cite textual evidence, and 4) How to corroborate or challenge claims.

**Navigate:** [Background](#Background) [Materials &Time](#Materials) [Starting Point](#StartingPoint) [Procedures](#Details) [Standards](#Standards) [Supplemental](#Supplemental)

# Background for Teachers

**Why this matters:** Students are faced with an overwhelming amount of information available online and need to learn how to sift through available sources to find ones that are credible and appropriate for a specific research task. Many students have a basic understanding of the importance of evaluating sources, but have not practiced source evaluation. This lesson guides students through the process of source evaluation by highlighting questions that the student should ask of the source in order to decide if it is reliable. Research skills are important in all subjects and empower students with the ability to gather relevant information about a topic to form and defend their opinions and ideas with accurate information.

**Assumed background:**

* How to perform internet searches for information
* How to identify and compare evidence between sources

**Special context:** The goal of this module is to show students that not all sources are credible and accurate. Instead of assuming that information they encounter online is true, students will learn what questions to ask of a source to evaluate credibility. This lesson approaches source evaluation holistically and should be used as a starting point for teaching news literacy. Integrating and processing clues from websites to decide if a source is reliable and trustworthy is challenging, and the answers are not black and white. The CRAP Assessment guides students through the questions that they should ask of a source and will be a useful guide for students across subjects and research tasks.

This module is adapted from Google lesson plans (Bergson-Michelson & Glass, ND) and Harold Reingold's CRAP Assessment (Reinhold 2012).

**Scaffolding supplements:**

Olimpi\_ELit\_assessment.docx

Olimpi\_ELit\_Lecture.pptx

# Module Description

## Materials:

* Chrome books or other laptops (1 for each student)
* Projector connected to instructor’s laptop

## Preparation:

* Find two source texts on the same topic with different levels of credibility, and share these with students. For suggestions, see Detailed Procedure: Source Assessment.
* Share an e-copy of the CRAP Assessment with students.
* Check internet connection and projector set up.

Timeline:

Warm-up Think-Pair-Share: "*What kinds of sources should you use when completing an assignment?*"(15 min)

Lecture on importance of evaluating sources (20 min)

Introduce source credibility with example texts (15 min)

Authorship and Credibility (10 min)

CRAP Assessment Activity (30 min)

Wrap-up Activity (15 min)

## Starting Point For Inquiry:

Guiding questions for this module:

* What should students consider about the sources that they find to decide which sources should be used for a specific research task?
* How can students recognize bias in a source, and when might biased information be useful?
* How can students fact check a source?

Students will be provided with 1) the CRAP Assessment to evaluate sources, and 2) the two source texts to evaluate.

## Detailed Procedure:

*Begin the PowerPoint presentation.*

**Warm-up Activity: Think-Pair-Share** (Slides 1-2)

Have students think about an answer to the question: *What kinds of sources should you use when completing an assignment?* Students should then discuss their ideas with a partner, and then share out with the class.

* Make a list of student responses on a whiteboard and highlight that the task can determine which kinds of sources to use. Students should recognize different media types, such as images, videos, books, websites, primary sources such as historical documents and letters, and different types of web sites, such as blogs and government sites.
* Guiding questions for discussion
  + *What types of sources would you use to complete <task>?*
  + *Alternatively, what kinds of task would you use a <source type> for?*
  + *When are sources with opinions vs. facts useful?*
  + *How do you decide which sources are appropriate and credible?*
  + *Are there any types of sources that you should avoid? Why*?
    - Students may throw out answers here such as opinion pieces, blogs, etc. Use this as an opportunity to point out that it all depends on context (i.e. Twitter hashtags to assess trends on social media, biased political websites to compare campaigns).

**Introduce source credibility** (Slides 3-5)

Review the list of sources and ask students, "*Besides knowing what your task is, what is critical about each of these sources if you are going to use them to support a claim or provide information about a topic?”*

To generate student responses, provide and read aloud 1-2 source texts, pausing to review specific sentences and discuss their impressions, and then ask the question again. The slideshow includes a satirical article on marijuana-related deaths, but this could be easily substituted.

* Remind students to use their instincts and ask: *Does this information seem unbelievable? Does it make sense to you or others? Does what you read conflict with something you already know to be true? Does the writing seem like hyperbole where something is grossly exaggerated? Is there a way to check this information out so you know whether it is true or not?*
* If students are having trouble, you may lead them to clues embedded in the text with guiding questions.
  + Names are borrowed from popular TV series (Jack Shepard, *Lost*; Jesse Pinkman, *Breaking Bad*)
  + Medical conditions: hypospadias is a physical birth defect, trimethylaminuria is a metabolic condition
  + Hyperbolic quotes
* Ask students what they should do when they find sources that raise red flags when answering the above questions. Have students try to validate info from the source text, emphasizing that comparing multiple sources can help them decide if the information is accurate.

Finally, reveal that a [Maryland police chief used evidence from the article in his testimony](reveal%20that%20this%20spoof%20story%20was%20believed%20by%20a%20Maryland%20police%20chief%20and%20used%20evidence%20from%20the%20article%20in%20his%20testimony%20before%20a%20state%20Senate%20committee%20considering%20bills%20to%20legalize%20and%20decriminalize%20marijuana.%20%20http://www.nydailynews.com/news/national/maryland-police-chief-apologizes-37-people-died-pot-overdoses-day-article-1.1702377) before a state Senate committee considering bills to legalize and decriminalize marijuana. Realizing that someone in a position of authority took this article as fact should help students feel empowered by their new skills evaluating sources.

**Importance of evaluating sources** (Slides 6-8)

Illustrate the importance of evaluating sources using real life examples.

* Hoaxes on social media
  + **Background:** A spoof advertisement claimed that iPhone users that updated to iOS7 would enable an emergency smart-switch that would protect iPhone circuitry if exposed to water. The advertisement may have originated on 4chan, a forum that promotes campaigns on social media to trick the public.
  + **Source evaluation fail:** Users who believed the advertisement upgraded their iPhones and dunked them in water to test the new feature.
  + **Consequence:** *What do you think happened to the iPhone users that believed this advertisement?*
* Staged protest in the news
  + **Background:** Google employees can take free Google buses to commute to work, making it easier for them to commute and contributing to higher housing prices in the San Francisco Bay Area. Google buses use public bus stops, but don’t pay fees or otherwise invest in local communities. A union representative posed as an angry Google employee shouting at protesters, calling his action political theater to raise awareness.
  + **Source evaluation fail:** The story was covered by the San Francisco Bay Guardian, and the newspaper initially thought it was real.
  + **Consequence:** *How could this news coverage affect public opinion? How might this news story affect the relationship between big tech companies like Google, labor unions, and local residents?*
* Racist & insensitive joke in the news
  + **Background:** Asiana Flight 214 crashed in July 2013 at the San Francisco International Airport. KTVU News, San Francisco’s Fox affiliate, confirmed the names of the pilots of Asiana 214 with an intern at the National Transportation Safety Board. KTVU did not ask their source at NTSB to confirm their position, and NTSB does not release the names of people involved in accidents to the media.
  + **Source evaluation fail:** KTVU announced the names of fake pilots aboard Asiana flight 214 when it crashed at San Francisco International Airport in July 2013.
  + **Consequence:** *How might this mistake have affected the news channel’s reputation?*

**Authorship & Credibility** (Slide 9)

Explain that identifying the author can help determine source credibility. Ask students what questions they would want to know about an author. Introduce the CRAP Assessment to delve into the kinds of questions they just generated about the author of an information source.

* Explain that not all of the information will be available for every source, but that considering the answers to these questions can help give them a sense of the source credibility. Information sources that are missing answers to some of the questions posed does not necessarily mean that they are entirely unreliable.
* Other factors of credibility include when an article was written and if the source can be verified. For certain topics, how old the information is can impact its reliability and accuracy. Ask students to volunteer their own examples of when date is important or not so important when researching sources.

**Source Assessment** (Slide 10)

Divide students into small groups, and each group will evaluate and compare two sources on the same topic with different credibility. Provide students with two articles on the same topic.

* A good starting point for 12th grade government classes is [Bill of Rights Institute: Teaching with Current Events](file://localhost/website%20%20http/::billofrightsinstitute.org:resources:educator-resources:headlines:). This website lists different topics on the left and provides links to credible articles on relevant current events. In this example, the teacher would select a credible article from this website, and then find another article that is biased, does not provide source information, is an example of lazy journalism, or is less credible in some way.

Have students work in small groups to answer the questions in one section of the CRAP Assessment for both sources.

* If students need guidance in tracking down authorship information, provide them with a list of ways that they can find more information on authors (e.g. linked author profiles, Google search, Twitter profiles, LinkedIn).
* Have half of the groups stay seated, and have the other half rotate between groups. Each group will give a min-presentation on what they found, and visiting groups will take notes to complete the other sections of the CRAP Assessment.
* Ask students to share findings from the CRAP Assessment with the class, including what information they were unable to find. Use these questions as a springboard for discussion: *Is it important to be able to answer every question? Why or why not? What do we do when we find sources where there are a lot of unanswered questions? What do you think about the credibility of your site after investigating answers to these questions? Has this shifted how you think about evaluating sources?*

**Wrap-up Activity**

Have students create a source evaluation flowchart where they have prioritized which questions to answer first to evaluate sources. Creating the flowchart will help them process the assessment techniques they've learned and will be useful for other classes.

## Assessment Methods:

An in-class discussion where students share what they found during the CRAP Assessment will demonstrate how well students are able to apply source evaluation skills. The discussion is also an opportunity to understand any flaws in reasoning as students explain what they found.

## Possible pitfalls:

* Students may not have previous experience evaluating a source and may have a difficult time answering some of the questions in the CRAP Scavenger Hunt, and some of the answers will not be available. Emphasize that this part of learning how to evaluate sources is practicing the process answering those questions that you can, processing that information, and making a decision. This is not an easy process, but it will become easier with practice.
* There needs to be a balance between structure provided and student exploration. Based on student needs, teachers may need to adjust activities by providing a worksheet designed to highlight specific clues on a certain website.
* Some students may feel like they were tricked is satirical news sites are used and they don't have previous experience with these sites. Real life examples of actual news sources picking up fake stories should help students understand that even legitimate news outlets have been duped, reinforcing the importance of the lesson.

# NGSS Standards Addressed

NGSS Practices

**Obtaining, evaluating, and communicating information**

 Compare, integrate and evaluate sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a scientific question or solve a problem.

 Gather, read, and evaluate scientific and/or technical information from multiple authoritative sources, assessing the evidence and usefulness of each source.

 Evaluate the validity and reliability of and/or synthesize multiple claims, methods, and/or designs that appear in scientific and technical texts or media reports, verifying the data when possible.

**Common Core:**

* [CCSS.ELA-Literacy.RH.11-12.1](http://www.corestandards.org/ELA-Literacy/RH/11-12/1/): Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
* [CCSS.ELA-Literacy.RH.11-12.6](http://www.corestandards.org/ELA-Literacy/RH/11-12/6/): Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
* [CCSS.ELA-Literacy.RH.11-12.7](http://www.corestandards.org/ELA-Literacy/RH/11-12/7/): Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
* [CCSS.ELA-Literacy.RH.11-12.8](http://www.corestandards.org/ELA-Literacy/RH/11-12/8/): Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.
* [CCSS.ELA-Literacy.RH.11-12.9](http://www.corestandards.org/ELA-Literacy/RH/11-12/9/): Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
* *K-12 College and Career Readiness (CCR) Anchor Standards for* ***Writing 8****:* Gather relevant information from multiple print and digital sources, assess the **credibility** and **accuracy** of each source, and integrate the information while avoiding plagiarism.

# Guide to supplemental materials

**Lectures**

Use the PowerPoint to guide discussion through the Source Assessment Activity.

**Labs (or Activities) & Worksheets**

Use the CRAP Assessment worksheet to evaluate sources and complete the Source Assessment Activity.

**Videos & Websites**

Further reading for teachers to contextualize this lesson: [Article](file://localhost/%E2%80%A2%09https/::www.insidehighered.com:news:2011:08:22:erial_study_of_student_research_habits_at_illinois_university_libraries_reveals_alarmingly_poor_information_literacy_and_skills) from The Chronicle of Higher Education on how students in the digital age can search the internet but have a hard time evaluating sources.

**Assessment Materials**

**Extension Activities**

This lesson is intended to introduce the concept that students should consider the credibility of internet content and the sources that they use for research tasks, as well as those that shape their personal opinions. Here are three additional activities to help students practice the skills introduced in this lesson (adapted from Adams 2014):

1. Quick daily extension: Display a [different example of dubious information each week or month](http://thenewsliteracyproject.org/liedetectorchallenge" \t "_blank) and challenge your students to research its accuracy using [non-partisan fact-checking resources](http://www.marketplace.org/topics/elections/list-fact-checking-websites" \t "_blank) and [advanced web searching](http://www.google.com/advanced_search" \t "_blank).
2. Follow-up 30 min extension: For homework, have students collect information that they feel is timely and important. Use a few examples to discuss who produced the content, and its intended purpose (i.e. inform, persuade, entertain, sell). Divide students into groups, have them pick one source, and evaluate one aspect of credibility. You may also choose to have students present their findings to the class.
   1. Context
   2. [Quality sourcing](http://thenewsliteracyproject.org/learn-channel/sourcing" \t "_blank)
   3. Verification
   4. [Word choice](http://www.poynter.org/how-tos/newsgathering-storytelling/writing-tools/79531/civil-war-and-civil-language-word-choice-and-the-newsroom/" \t "_blank)
   5. Documentation
   6. Fairness

**Original Sources**

1. Adams, P. 2014. News literacy: Critical thinking skills for the 21st century. *Edutopia*. Accessed 9 December, 2014: < http://www.edutopia.org/blog/news-literacy-critical-thinking-skills-peter-adams>.
2. Bergson-Michelson, T. & Glass, K. Beginner & Intermediate 5: Evaluating credibility of sources. Google lesson plans. Accessed 15 November, 2014: https://docs.google.com/document/d/1wpDm3zSQn8xgfsM4k53MKXopO9YshbFp7og9LZmDN6Y/edit.
3. Rheingold, H., & Weeks, A. (2012). *Net smart: How to thrive online*. MIT Press.