

**Name/Title:** **Successfully Evaluating on-line Health Related Information****Purpose of Event:**

- TSW understand the meaning of the words valid, reliable, and unbiased
- TSW be able to evaluate the trustworthiness of on-line information
- TSW understand what quackery is and identify the common persuasive techniques used to sell fraudulent products

**Suggested Grade Level:** 9-12

**Materials Needed:** class access to internet; or if not possible print out pages from internet for students to look at in class

### Description of Idea

**Background Information:**

When using the internet, an educated consumer finds and compares information from various sources in order to evaluate reliability, validity/accuracy, authority, timeliness, and point of view (bias). Much of what is put on the internet is biased and potentially unreliable. People, organizations and companies use the internet to persuade and sell. Always seek out multiple sources for information and be skeptical. Leave room open in your brain for the other side of the story.

**Class Activity (group discussion):** Defining the words valid, reliable and unbiased  
Write the words valid, reliable and unbiased on the board. Ask the following questions: What does it mean to be biased? (unfair, one-sided, based on opinions). So what does it mean to be unbiased? (be fair, be impartial, be just, based on facts) Think about someone you know who is reliable. What is it about them that make them reliable? (on time, keep their word, trustworthy, honest, dependable). And what about this last word, valid? What does it mean if you do a science experiment and your results are invalid? (flawed, inaccurate, incorrect). Being valid then means information that is accurate, credible, legit. So how can you determine if the information you read on-line is valid?

**Class Activity (small group):** Put your students in groups of 3-4. Instruct your students to go to the following two websites and read the information provided:

- <http://nccam.nih.gov/health/webresources/>
- <http://nnlm.gov/outreach/consumer/evalsite.html>

After reading the websites (you can print out copies of the information before hand if your class won't have access to the internet), give your students 15-20 minutes to come up with a list of 5 guidelines for evaluating the reliability, validity and potential bias of a web-site. It may help if you create a scenario such as "your aunt comes to you with a bad rash on her foot. She found an article on-line about foot rashes but she doesn't know if she can believe it. What advice would you give her for evaluating the information?"

After each group has created their list, have them turn it in. Scan over their lists and pick the best ones to write on the board. Below are 5 guidelines:

1. Who wrote this information?
  - a. What are their credentials? Who are they affiliated with? How do they make their living?
2. Is the purpose of the information solely to educate me or to get me to buy a product?
3. Is the information presented in a way that lets me come to my own conclusions or does it seek to persuade me in a particular direction?
4. Who is sponsoring the website?
  - a. How are they funded? What is their purpose?
5. Are sources of the information cited so I can check their accuracy?

#### Mini-lecture

The rise of the internet has opened new frontiers in the marketing of alternatives to traditional Western medicine. According to the Institute of Medicine (IOM) Americans spend over 27 billion a year on complementary and alternative medicine (CAM) therapies. CAM is defined by the National Institutes of Health (NIH) as a diverse group of medical and health care practices and products that are not currently part of conventional medicine. Complementary medicine is used along with conventional medicine while alternative medicine is practiced in place of conventional medicine. While many CAM therapies can be helpful for individuals, the rise in usage has led to a rise in quackery.

Quackery is the deliberate or unknowing misrepresentation of the ability of a substance or device to prevent or treat a disease or illness. A quack is anyone who promotes schemes or remedies that are unproven or known to be false, for a profit. The buying and selling of non-FDA (Food and Drug Administration) approved devices, supplements and treatments is a billion-dollar enterprise. In order to protect yourself against health fraud, you should avoid web sites that fail to list the company's name, physical address, phone number, or other contact information. Additionally, be aware of the common techniques and gimmicks (listed below) that fraudulent marketers use to gain your attention and trust. (adapted from FDA 101: Health Fraud Awareness; 2010)

1. Use of testimonials. Testimonials from people who say they have used the product may sound convincing, but these can easily be made up. These "testimonials" are not a substitute for scientific proof.
2. A cure-all. Watch for claims that a product is an effective treatment or a diagnostic tool for a wide variety of ailments.

3. Suggestions that a product can treat or cure diseases. If this were true, it would be widely known.
4. Promotions using words such as "scientific breakthrough," "miraculous cure," "secret ingredient," and "ancient remedy".
5. Text with impressive-sounding made up medical or chemical terms such as: "hunger stimulation point" and "wpi-100".
6. Undocumented research claims. Avoid products that use terms such as "University Tested" or "Clinically Proven" without accompanying proof from peer-reviewed medical journals.
7. Case histories. Relying solely on personal testimonials from other customers or doctors claiming amazing results.
8. Promotions that pressure you to buy now. "Act now". "Limited availability" and "Hurry, limited time offer."
9. Promises of no-risk, money-back guarantees.
10. Claims that the product is "natural" or "non-toxic" (which doesn't necessarily mean safe).

Make sure as the teacher to find and bring 5 or 6 ads that show examples of these questionable advertising techniques. Share them with your class.

### **Assessment Ideas:**

1. Using the guidelines generated in class, assign each student to visit 2 health related websites (one that you know is reliable such as CDC.gov or NIH.gov and one of their choice that ends in .com). Ask them to summarize their findings based on the class guidelines and report back.
2. Have the students make up a fictional health product and then create a flier to advertise their product. The purpose is to use as many of the common techniques and gimmicks (listed above) as they can. Students should be encouraged to be creative. Have students put their 'ad' on the board without their names on it. Students can then vote for the 3 or 4 best ads with those students getting extra credit.

---

Submitted by **Cynthia Allen** who teaches at Carthage College in Kenosha, WI. Thanks for contributing to PE Central! **Posted on PEC: 9/14/2011**. Printed 1244 times since 4/28/2011.

---

[Back to Viewing this lesson](#)  
[Search for more lesson ideas](#)

Printed: 1/24/2017 12:16:32 PM EST

Visit [S&S Discount](#) for all your physical education equipment and supplies!

