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Student assessments are an important component of i-SAFE. When beginning the i-SAFE program with these lessons, i-SAFE strongly encourages educators to administer the pre-assessment online at <http://auth.isafe.org/selftest/index.php>.

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# LESSON PLAN—Web Site Validity & Reliability

## Suggested Grade Levels – Grades 5-8

### Learning Objectives

Learners will understand the term validity, the right to freedom of speech and how online resources are not always well balanced and fair.

### Enrichment Goal

In this lesson, learners will be provided with background information to create an informational poster display about Web site validity and reliability.

### Materials/Preparation

- copies of the reference pages for each student



### Lesson Procedures

#### Introductory Activity:

- Randomly assign a writing topic to each student from writing topic list at the end of the lesson plan.
- Instruct students that although they may know nothing, next to nothing, or quite a bit on the topic they were given, they are to pretend to be experts and write a short article on the topic.
- Inform students they will have 15 minutes to write on the topic and then you will randomly select articles to read to the class – which will judge articles based on whether they were “convinced” that one was an expert.

#### Article Discussion

- After 15 minutes, randomly select a few articles and read them to the class.
- Have students rate each article on a scale from 1-10, with 1 being poorly written and unbelievable to 10 being totally convinced. Remind students to rate based upon whether the article was believable – not whether they “know” that the writer couldn’t actually know that information.
- Ask students why some articles were more believable than others.
- Ask students if it is always easy to identify what is true and what is not.
- Ask students to share their thoughts on why someone might want to write on a topic and provide information that is not necessarily valid or proven.
- Discuss:
  - > Term “valid”: well grounded in fact or based on support
  - > Term “reliable”: worthy of reliance or trust – dependable source of information
  - > Right to freedom of speech: Civil right guaranteed by the First Amendment to the U.S. Constitution.
  - > How can the right to freedom of speech along with the nature of the Internet result in inaccurate, invalid, and even dangerous information being posted as fact?
  - > What are some examples of why someone would post information online not based on fact? *Examples: hate sites, drug proponents, advertising to make a sale, etc.*

## Reference page

- Hand out the reference page to students, and read the first page, “Validity and Reliability” as a class.
- Use the second page, “Food for Thought” to discuss the following:
  - > What are some topics that might be misrepresented online?
  - > What ways can one determine the validity/reliability of a Web site?
  - > Have you ever seen a site aimed at swaying opinion or misrepresenting information?

## Activity

- Divide class into small groups.
- Pass out materials to design posters.
- Use the information on the reference page to have students design posters or flyers with information on how to report online gang action or other dangerous activity, publicized on the Internet to community or school officials.

## Enrichment Activity

Arrange to display posters in the library media center or computer lab area.

Have students collaborate to write a supporting article about the topic and location of the posters for the school bulletin or newspaper.

### Teacher Reference: Topic Writing Sheet

- |                          |                                     |                           |
|--------------------------|-------------------------------------|---------------------------|
| 1. Skateboarding         | 11. Building a model rocket         | 21. Eye color             |
| 2. Building a skyscraper | 12. Running a marathon              | 22. The Bill of Rights    |
| 3. Sharks                | 13. Losing weight                   | 23. Electricity           |
| 4. Children's stories    | 14. Hanging a ceiling fan           | 24. How to feed a baby    |
| 5. Computers             | 15. Hit TV shows                    | 25. Ballet                |
| 6. Dalmatians            | 16. Music from the 60's             | 26. Fruits vs. vegetables |
| 7. Pool maintenance      | 17. Top ten Web sites               | 27. Famous wars           |
| 8. Growing a garden      | 18. Sewing a pillow                 | 28. Baking a cake         |
| 9. Making good grades    | 19. Einstein's theory of relativity | 29. Vacuuming             |
| 10. Winning the lottery  | 20. The planets                     | 30. Investing money       |

# REFERENCE—Reliability and Validity

Someone once said you can't believe everything you read. That is certainly the truth. Just because something is in print, on the TV, posted on the Web, etc., does not make it fact. So how are you supposed to figure out what is valid and reliable?

- Valid: Well grounded in fact or based on support
- Reliable: Worthy of reliance or trust – dependable source of information

## Think about it

If you were standing in line in the grocery store, closed your eyes, and grabbed a magazine - what might it be? Chances are you could be reading about the latest alien baby or a 3-headed man. Do you think those stories are always valid and reliable?

Obviously if your English teacher assigns you to write a paper on Shakespeare, you want to do your research utilizing valid and reliable sources of information. Once upon a time it was fairly easy to make sure such valid and reliable information was utilized. Students went to the library and looked up research in encyclopedias and reference books on hand.

## Think about it

Why do you think the information found in a library is largely valid and reliable?

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Information in libraries is screened. Librarians, patrons and others review books and materials before it is ever put on the shelf. However, more and more students are utilizing wrong or invalid information in school reports.

Why do you think this is?

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Although people have always published opinions as fact or broadcast unreliable information, it has become even easier and more pervasive with the advent of the Internet and Web 2.0.

Information on the Internet is user submitted and much of it has no review process to ensure validity or reliability. User-defined information sources such as Wikipedia have gained prominence. Wikipedia is a user-written encyclopedia that depends on peer review for ensuring that information is truthful and accurate. However, such sites have their flaws allowing errors through. At least, however, peer review catches most of them. Other outlets for student information can be written by anyone with a thought (however wrong) in their head.



## Think about it

How easy is it to create a Web site or blog? Could you write about anything and make it sound like it is true?  
How would you know whether something is true or made up?

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Before utilizing information online or from anywhere, you should screen it.

How should you get started?

What are some things you might use to determine if a source is valid and reliable?

## The Screening Process:

### Before You Begin

#### Pre-Evaluation

Before you even start your search for information, take time to think about what you are looking for. Identify whether you are looking for facts or opinions. If you want opinions, do you want respected experts or just anybody? Do you need statistics, narratives, eyewitness accounts or descriptions? Are you looking to support your own position or prove something? By having a firmly identified goal you will be able to screen sources against that goal quickly and easily.

#### Choosing Reliable Sources

Another bit of pre-work that can help you identify valid and reliable information is by brainstorming sources. Ask yourself what source or kind of source would be the most credible for providing information in this case. Which sources are likely to be fair, objective, lacking hidden motives, showing quality control? Keep these questions in mind as you read through sources and discard those that are suspicious or questionable.

### As You Search

#### Look For Information

Select sources that have as much of the following information as possible – author's name, author's title or position, author's organizational affiliations, date of page creation or version, author's contact information.

#### Using CARS Checklist

The CARS Checklist is designed to help select sources of the highest quality. Remember, few sources will meet every criterion on the list. But, use the checklist to select the best sources available to you.

#### C Credibility:

Does the site have a trustworthy source? Does it offer author's credentials? Is there evidence of quality control? Is the author a respected expert? Does it list the author's organizational ties or support?

#### A Accuracy:

Is the source up to date, factual, detailed, comprehensive, and exact? Who is the intended audience? What is the purpose of the work?

#### R Reasonableness:

Is the source fair, balanced, objective, and reasonable? Is there a conflict of interest? Does it express a slanted tone?

#### S Support:

Are other sources cited? Does it offer contact information? Is there any corroboration? How are claims supported? Is documentation supplied?



## The Multiple Source Test

Use the multiple source test to verify information. Don't trust information that can't be corroborated with other sites or information that is contradicted on multiple other sources without valid reason. Use sound judgment in source selection.

## Think about it

Why might someone provide slanted or inaccurate information as a source?

## Try it

Select a topic below and see if you can find a questionable source of information for it.

- Shakespeare
- The Big Bang Theory
- Ants
- The best children's toy
- Top movies ever

## Activity

List your source, and list the process you went through to come to the conclusion that it is a reliable source.

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