

Where Did You Read THAT?

Evaluating Web Sources

Student/Class Goal
Students often enjoy debating ideas, but dread the idea of research papers. Give them tools for evaluating the popular web sources that they might look to for future debates or research projects.

Outcome *(lesson objective)*
Students will learn to evaluate websites by six key components (credibility, bias, audience, accuracy, currency, and relevance).

Time Frame
Two 1 hour sessions (include additional time for extension activity in session 1)

Standard *Read with Understanding*

NRS EFL 6

Purpose	Benchmarks	Word Knowledge	Benchmarks	Comprehension	Benchmarks
Purpose for reading	6.1	Decoding skills		Strategy use	6.11
Select text		Word parts		Text structural elements	6.12
		Context clues		Genres	
		Reference materials	6.6	Literary analysis	6.14
		Word relationships		Drawing conclusions	6.15
		Content vocabulary		Making connections	6.16
		Figurative language			
		Fluency			

Materials

SESSION 1
Whiteboard or chart paper
Six Keys and My Tips Handout
What Do I Think About This Site? Handout
Websites: Checklist Handout
Smoking cigarettes has short-term health benefits Article
Cigarette Smoking Exacerbates Alcohol-Induced Brain Damage Article
Computers with Internet access

SESSION 2
Computers with Internet access
My Evaluation of Wikipedia Handout

Learner Prior Knowledge
Students should have beyond beginner computer skills. This should include the ability to access Internet and access a website when the address is provided. They will need to navigate through dense text sites. Pair students for peer assistance as needed.

Instructional Activities

SESSION 1 ACTIVITY – How to Critically Evaluate a Web Site

Step 1 - Set the stage for the activity by making a statement/writing on the board about something you read on the Internet. i.e. "I read on the Internet that it's OK to eat over 4,000 calories a day as long as you exercise." "I read on the Internet that 80,000 people are out of work in our state." Explain that the focus of today's activity is to get you thinking about where you get your information and how to evaluate the source of that information. At the college level, you will be required to evaluate sources that you use in your research for papers, projects, and presentations.

Step 2 - Provide students with *6 Keys and My Tips*. Explain the six key terms on the checklist, using the questions listed to help clarify the meaning of each term. Students can use the "My Tips" section to record tips from this explanation as well as from the website tutorial to come.

Step 3 - Have students access the link listed under Materials for Session 1. Have students work in pairs to go through the tutorial screens on Evaluating Websites. Their goal is to locate tips that might be useful to them when evaluating websites. They should record these tips in the My Tips section of the handout provided earlier.

Step 4 - As students complete the tutorial, provide them with *What Do I Think About This Site?* handout that requires them to critically evaluate the website hosting this tutorial. Based on students' evaluation response, teacher can extend discussion on evaluating in general or the site in specific.

Teacher Note Answers will vary but this gives you some ideas. Who is the author/source of this site? (University of North Carolina Library) When was this site last updated? (see Last Update in lower left-hand corner) Do you think a tutorial on evaluating websites might need to change over time? Why or why not? (It's possible that how we evaluate might vary somewhat as the technology continues to develop.) Who do you think the intended audience is for this site? (university students) Do you think there is any bias here? (note it's an education site; think about what is their motivation for educating their students in this area) Do you feel this is a credible site for studying our topic today? Why or why not? (seems high on the credibility rating as a library promoting research skills) Do you think this is a relevant topic for college students? Why or why not? (answers will vary).

Step 5 - If desired, provide students the option to print out the *Websites: Checklist* at the end of the online tutorial. Or you could provide this in handout form for student reference in Session 2. Students should come prepared with the tools they need to evaluate a popular web site in Session 2.

Step 6 - For extension, provide additional time for students to review copies of the two web articles with contrasting research about smoking cigarettes (or locate your own articles that show differing views of the same topic). Students can work in pairs or triads to read through and evaluate these two articles using the 6 Keys. They may want to go to the online links to obtain background information about the sites.

SESSION 2 ACTIVITY – What is Wikipedia and Should I Use it for Research?

Step 1- Review the 6 Keys for Evaluating. Explain that the Session 2 activity will focus on students applying their evaluative skills to a very popular web site called Wikipedia. Provide some background and history of what Wikipedia is all about (you can gather information for yourself from Section 1 of the link listed below as well as other sites such as www.conservapedia.com/Wikipedia and www.nytimes.com/info/wikipedia which will offer varying levels of bias☺)

Step 2 - Have students access the Wikipedia information link listed under Materials for Session 2 and scroll down to section 2 "Making the best use of Wikipedia" – they should carefully read and take notes on this section with the purpose of evaluating Wikipedia as a research source.

Step 3 - Provide students with *My Evaluation of Wikipedia* handout for recording their personal evaluation of Wikipedia as a research source. Students can refer to the 6 Keys and the Evaluative forms received in Session 1 to help develop their evaluation. Students may include different perspectives in their evaluations, but should include at least one statement about each of the 6 Key Elements. Emphasize that this is a limited evaluation using limited information. For extension: Provide students with more information and resources in order to make their evaluation. They could look up an entry or two on Wikipedia and read what it says about a given topic. Or they could look at the sites referenced in Step 1 of this activity for instructor information.

Step 4 - Have students interact about their evaluations and note similarities and differences in their evaluative remarks. Encourage students to continue developing their critical thinking skills and not just take everything they view on the Internet as truth or believe something "because so and so said it".

Assessment/Evidence *(based on outcome)*

Students will complete 2 evaluative reports using the 6 Key Elements taught in this lesson: one on the tutorial website and another on the usability of Wikipedia for research purposes. The evaluations will reflect student's ability to interact with each of the six criteria for website evaluation as discussed in class.

Teacher Reflection/Lesson Evaluation

This lesson has not yet been field tested.

Next Steps

Once students begin to evaluate their online sources more carefully, they will need to know how to document those sources for college-level work. Provide instruction on how to properly cite a Web source (there are many sites online that will build citations and reference pages for you if you provide the details!) Start to talk about the idea of plagiarism. Lots of directions to go and lots of work to be done!

Technology Integration

Evaluating Information: Websites

<http://www.lib.unc.edu/instruct/evaluate/web/index.html>

Start with this link, and then use the “next” arrow at the bottom right of each screen to walk through the entire tutorial on website evaluation. You should end with the printable checklist.

Smoking cigarettes has short-term health benefits

<http://media.www.thetriangle.org/media/storage/paper689/news/2005/11/18/SciTech/Smoking.Cigarettes.Has.ShortTerm.Health.Benefits-1109656.shtml>

Cigarette Smoking Exacerbates Alcohol-Induced Brain Damage

<http://www.sciencedaily.com/releases/2004/12/041220004610.htm>

Link to *Wikipedia: About Wikipedia – the free encyclopedia*

<http://en.wikipedia.org/wiki/Wikipedia:About>

For varying perspectives on Wikipedia, try these:

www.conservapedia.com/Wikipedia or www.nytimes.com/info/wikipedia

Purposeful/Transparent

Students are given six criteria to evaluate web resources for accuracy in preparation for writing research papers so they can determine if the source is credible and can be used for their writing.

Contextual

Critically reading sources and writing research papers is an important skill for students to master as they continue to postsecondary training. Internet articles based on student interest are used in the teaching and learning process.

Building Expertise

Many students have had little practice ‘doing research’ in preparation for writing papers. Students will hone their computer skills and begin to evaluate websites for their credibility, bias, audience, accuracy, currency and relevance.

6 KEYS

MY TIPS FOR EVALUATING

Credibility Can I believe the source and trust what they say?	
Bias What is the source's viewpoint or belief about the topic?	
Audience Who do they expect to use this site (children, research students, general public...)?	
Accuracy Is the information correct?	
Currency Does the information need to be current and up to date with changing knowledge?	
Relevance Does the discussion connect to the topic at hand or is it a side issue?	

What Do I Think About This Site?

1. Who is the author/source of this site?
2. When was this site last updated?
3. Do you think a tutorial on evaluating websites might need to change over time? Why or why not?
4. Who do you think the intended audience is for this site?
5. Do you think there is any bias here?
6. Do you feel this is a credible site for studying our topic today? Why or why not?
7. Do you think this is a relevant topic for college students? Why or why not?

Websites: Checklist

This is a printable checklist for evaluating websites.

Credibility Is there an author listed? _____
Does the author cite sources or a bibliography? _____
Does the author cite formal credentials or
experience? _____
Can you contact the author? _____
Do you know who sponsored the page? Are
they reputable? _____

Bias
Does the site present information in an
objective manner? _____
Are all sides of an issue represented, or is this
site biased? _____

Audience
Is the level of the website appropriate to your
needs? _____
Does the content cover several topics
minimally or one topic in detail? _____

Accuracy
Does the site provide documentation for the
information provided? _____
Does the site provide information that
contradicts other sources? _____
Does the site include an explanation of its
research methods? _____

Currency
Was the information recently published? _____
Has it been updated or revised? _____

Relevance
Does the information add to or support your
research? _____
Does the site provide additional links that are
also useful? _____
Does the page provide more or less
information than you need? _____

Source: <http://www.lib.unc.edu/instruct/evaluate/web/checklist.html>

Smoking cigarettes has short-term health benefits

Kurt Ritzman

Issue date: 11/18/05 **Section:** Sci-Tech

The dangers of smoking cigarettes are often greatly exaggerated while the benefits are downplayed. Now, smoking cigarettes is certainly bad for you physically overall, but the threat of diseases such as lung cancer or emphysema are made out to be worse than they actually are. For lung cancer specifically, as long as you quit smoking before your cells turn cancerous, then you are basically in no danger.

Once you quit smoking it takes only three days for the cilia in your respiratory system to start regenerating and in turn the cilia once again start to protect your lungs from harmful pollutants. The cilia normally return to their full functioning capacity about six months after quitting smoking. This shows that the effect that smoking has on your body is largely reversible, assuming that you quit before you actually have malignant cancer cells.

A study done in 2003 by Donald Massaro, et. al titled "Calorie-related rapid onset of alveolar loss, regeneration, and changes in mouse lung gene expression" was done on mice. This study was extrapolated to humans, and shows that the amount of calorie intake also has a strong effect on the lungs. When kept in conditions nearing that of starvation, the lungs show emphysema-like symptoms, but when normal eating patterns resume the lungs can take in more oxygen again and therefore, lung regeneration rapidly takes place. So if lungs can recover from emphysema-like symptoms and regenerate to normal capacity, it follows that the lungs could regenerate themselves after actual emphysema, or other ill effects from smoking.

A study printed in 2001 by Michael Houlihan, et. al. titled "Effects of smoking/nicotine on performance and event-related potentials during a short-term memory scanning task" showed that smoking cigarettes, or more specifically the nicotine in cigarettes, has a positive effect on short-term memory. A "denicotinized" cigarette and a "nicotine-yielding" cigarette were used to show the difference between the amount of nicotine ingested and the effect on short-term memory. This study basically showed that smoking shortens response time and it also positively affects event-related potentials. The response time was more greatly affected so, this shows that nicotine shortens response time by affecting response-related processes.

Ellen Heber-Katz and a team of scientists working within the University of Pennsylvania have successfully engineered a mouse that can fully regenerate any of its organs except for its brain. This study basically damaged all of the organs, including the lungs, on purpose. So, the study can be extrapolated for lung damage or any damaged organ. This ability for regeneration seems to be controlled by only a few genes within the mouse. These genes almost certainly have comparable counterparts in the human body, so while this may seem to be a little more work it does give even people that are diagnosed with lung cancer hope. Although all of these benefits can only be reaped after you quit smoking, as long as you do that in a timely manner, you should be fine. Here are some facts from past U.S. Surgeon General's Reports: Less than five days after quitting smoking it will be noticeably easier to breathe because the lungs can now hold more air. One year after quitting the risk of heart disease is reduced to one-half of the risk of a continuing smoker. Five years after quitting, the risk of a stroke is equal to that of a nonsmoker. Ten years after quitting the lung cancer death rate is half of that of continuing smokers. The risk of cancer in the mouth, throat, esophagus, bladder, kidney and pancreas all decrease. Fifteen years after quitting smoking his risk of coronary disease is the same as a nonsmoker.

There is hope because the negative effects of smoking are certainly reversible and even though quitting is the way for health to improve, the story is not as bleak as some people make it out to be.

There was a man who smoked unfiltered cigarettes for twenty years before quitting. Now, his lungs look as



Media Credit: Mat Boyle

A University student smokes without concern for negative health risks.

healthy as those of someone who had never smoked in his life. So enjoy smoking now; just be sure to quit before too late, so as not to miss out on the wonderful regenerative qualities of the human body.

Kurt Ritzman is a junior majoring in communications.

First appearing on campus in 1926, The Triangle is the newspaper-of-record at Drexel University. The paper is published every Friday during the fall, winter, and spring terms, and every other week over the summer. Being both financially and editorially independent of the University, all decisions about content as well as the paper's growth are made by the Editor-in-Chief and Editorial Board.

The Triangle covers campus and Philadelphia news, sports and entertainment as it affects the Drexel community. Each issue also contains commentaries, classifieds, puzzles & comics and a campus events calendar.

Cigarette Smoking Exacerbates Alcohol-Induced Brain Damage

ScienceDaily (Dec. 30, 2004) — The substances most frequently used by alcohol-dependent individuals are tobacco products; roughly 80 percent of alcohol-dependent individuals report smoking regularly. Although brain morphology, neurometabolism, and neurocognition are known to be adversely affected by chronic, heavy alcohol consumption, little research has examined the independent effects of cigarette smoking or its potentially compounding effects on alcohol-induced brain damage. A study in the December issue of *Alcoholism: Clinical & Experimental Research* has found that cigarette smoking can both exacerbate alcohol-induced damage as well as independently cause brain damage.

"While the effects of cigarette smoking on the heart, lungs, central and peripheral vascular systems, and its carcinogenic properties have been studied for many years in humans, very little is known about its effects on the brain and its functions," said Timothy C. Durazzo, a neuropsychologist and neuroscience researcher at the San Francisco Veterans Administration Medical Center and corresponding author for the study. "A mere handful of studies indicate that chronic cigarette smoking by itself has adverse effects on brain structure and cognitive functioning. However, to date, we are not aware of any published studies using magnetic resonance imaging methods on human brains that have shown cigarette smoking compounds alcohol-induced damage."

What is known, said Durazzo, is that smokers tend to consume more alcohol than non-smokers. It is also known that chronic alcohol dependence can damage alcoholics' brains, particularly the frontal lobes, which are critically involved in higher-order cognitive functions such as problem solving, reasoning, abstraction, planning, foresight, short-term memory, and emotional regulation. "So, is all the brain damage described in alcoholics in treatment due to chronic excessive alcohol consumption," asked Durazzo, "or does chronic comorbid smoking also contribute to some of the damage observed?"

Researchers compared 24, one-week-abstinent alcoholics (14 smokers, 10 nonsmokers) in treatment with 26 light-drinking "controls" (7 smokers, 19 nonsmokers) on magnetic resonance spectroscopic imaging measures of common brain metabolites in gray and white matter of the major lobes, basal ganglia, midbrain and cerebellar vermis. Measures of neurocognitive functioning and laboratory markers of drinking severity and nutritional status were also compared.

"Results indicate that chronic cigarette smoking increases the severity of brain damage associated with alcohol dependence," said Durazzo. "That is, the combined effects of alcohol dependence and chronic smoking are associated with greater regional brain damage than chronic alcoholic drinking or smoking alone. Our studies show that this exacerbation of the alcohol-induced brain damage is most prominent in the frontal lobes of individuals studied early in treatment."

Durazzo noted that frontal-lobe functions are applied in multiple contexts of everyday life. "Therefore, exacerbation of alcohol-induced damage to the tissue of the frontal lobes by chronic cigarette smoking may further compromise recovering alcoholics' ability to successfully execute more challenging activities of daily living or accurately judging or anticipating the consequences of their actions, particularly with increasing age," he said.

Cigarette smoking, independent of alcohol consumption, was also found to have adverse effects on neuronal viability and cell membranes in the midbrain and on cell membranes of the cerebellar vermis.

"These brain regions are involved in fine and gross motor functions and balance and coordination," said Durazzo. "We also observed that higher smoking severity among smoking recovering alcoholics was associated with lower N-acetylaspartate levels in lenticular nuclei and thalamus, areas also involved in motor functions." N-acetylaspartate is an amino acid derivative and its concentration is used as a measure of neuronal viability. "Together, these findings may indicate a particular vulnerability of subcortical structures to the effects of cigarette smoking," he said.

Durazzo added that these findings have significant implications for both alcohol researchers as well as the general population.

"Our results give strong preliminary evidence that chronic cigarette smoking, a behavior that commonly is associated with alcohol dependence, has a significant impact on the integrity of tissue in several brain regions, particularly the frontal lobes and cerebellum," he said. "Previous research has largely ignored the possible effects that comorbid cigarette smoking may have on the brain. These risks exist above and beyond the increased risk for cancer, and cardiovascular, cerebrovascular and pulmonary disease. At this point, it is unclear if the brain injury and cognitive compromise associated with chronic smoking shows recovery during a sustained period of smoking cessation, or if continued smoking during abstinence from alcohol affects recovery from alcohol-induced impairment. These are important topics that need to be investigated in the future."

Durazzo added that chronic cigarette smoking is also commonly seen in other neuropsychiatric conditions such as schizophrenia, depressive disorders and anxiety disorders. "Any neuroimaging and/or neurocognitive investigation of these conditions should consider the potential impact of smoking on outcome measures," he said. "Given the growing evidence that cigarette smoking has adverse effects on brain structure, brain metabolites and function, consideration of the potential effects of smoking may be particularly important in medication trials for the above conditions, where participants may respond differentially based on their smoking status."

Alcoholism: Clinical & Experimental Research (ACER) is the official journal of the Research Society on Alcoholism and the International Society for Biomedical Research on Alcoholism. Co-authors of the ACER paper, "Cigarette smoking exacerbates chronic, alcohol-induced brain damage," were Stefan Gazdzinski and Dieter J. Meyerhoff of the San Francisco Veterans Administration Medical Center and the Department of Radiology at the University of California, San Francisco; and Peter Banys of the San Francisco Veterans Administration Medical Center and the Department of Psychiatry at the University of California, San Francisco. The study was funded by the National Institute on Alcohol Abuse and Alcoholism.

Story Source: The above story is reprinted (with editorial adaptations by ScienceDaily staff) from materials provided by Alcoholism: Clinical & Experimental Research.

6 KEYS

MY EVALUATION OF WIKIPEDIA

<p>Credibility</p> <p>Can I believe the source of an entry on Wikipedia and trust what they say?</p>	
<p>Bias</p> <p>What does Wikipedia state about the viewpoints or beliefs included in entries on its site?</p>	
<p>Audience</p> <p>Who do they expect to use this site (children, research students, general public...)?</p>	
<p>Accuracy</p> <p>Is the information in Wikipedia entries correct?</p>	
<p>Currency</p> <p>Does the Wikipedia entry information need to be current and up to date with changing knowledge?</p>	
<p>Relevance</p> <p>Do Wikipedia entries stick to the topic at hand or delve into side issues?</p>	