

Teaching Search Engines to ESL Students: Avoiding the Avalanche

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This article discusses the reasons teaching search engines to ESL students is important. After acknowledging a few reasons why ESL students and teachers may experience frustration, the article gives nine practical tips for making a lesson plan to teach internet search engines to ESL students. The tips include advice for before, during, and after the students actually sit down at the computer.

The Internet

The Internet is an exciting place, full of potential for both EFL teachers and students. This potential may sometimes feel like an avalanche of information. Many EFL professionals recognize the importance of teaching students how to utilize this resource, despite the danger of falling rocks, for several reasons. Students need to learn to use English searching techniques because of several inter-related reasons. First, despite developing multilingually, most of the World Wide Web is still in English. As a result, the best way to empower students in terms of accessing resources online is to teach them searching skills in English. Finally, the Internet represents a vast array of authentic resources as well as motivational opportunities. (Warschauer, 2000 and Singhal, 1997)

In the case of Japan, where college and university-level students are sometimes required to turn in research papers for class or degree requirements, but where the language level is often intermediate or lower, teachers and students often experience online searching in English as frustrating and bewildering.

Falling Rocks

At Josai International University in Chiba, Japan, students' frustration stems from several different sources. First of all, our students have little computer experience. This was also a problem noticed by Trokeloshvili & Jost, (1997.) at their college. Another problem is students have had little exposure to authentic materials in their high-school language curriculum. This makes finding information on websites daunting. Thirdly, our students had difficulty in adapting to an autonomous, self-directed style of learning. Unfortunately, a self-directed style is necessitated by the nature of searching, where the teacher is a guide and not the focus of the class.

Other problems specifically related to teaching online bibliographic skills are stumbling blocks most ESL teachers, unlike most Librarians, may be unfamiliar with. These problems can include frustration with lack of progress online coupled with a tendency to give up, not knowing the right keywords to use in their search, and keywords that are too general or unfocused (Lavery, 1998).

Despite the problems mentioned above, Josai International University students responded positively to an attempt at helping them research in English for a term paper related to their graduation requirements. In a native-language questionnaire, 16 out of 18 students responded positively to the question "If some one taught me, I would use the Internet more," and "It's a good idea to have a class about searching in English." While 17 out of 18 responded positively to the question "Did this class help your research?"

So how should EFL professionals respond to the need for teaching online searching for lower or intermediate level students? I turned to my experience teaching simple searching with Google, Yahoo, and Dogpile to lower level students, as well as tips library science specialists have already developed online. These resources include a review of web tutorials specifically aimed at searching (<http://www.glendale.cc.ca.us/cjcls/Committees/bicomm.htm>), as well as Library science instruction links organized by a prominent Library science organization. (<http://www.emich.edu/public/loex/islinks/tutlinks.htm>) From these resources and my own experience, a few general tips or guidelines have become apparent.

Before You Start:

Some teacher-focused exercises before students even hit the computers are a good way to calm some anxiety as well as ease students' transition into a more independent learning style.

1) Cluster Topic

Don't expect or even let students have a topic set-in-stone before they begin their search. Most students I worked with had only a vague or general idea of what they wanted to research before starting the actual search process. As they looked at the different documents available to them, they were able to narrow down their topic and specifically state what they wanted to research. Students starting out with a specific topic from the beginning sometimes met with success, but sometimes were frustrated by a lack of resources on their topic. It might be best to have students brainstorm a variety of possibilities from the same topic. One way to do this is from a brain-storming cluster diagram such as the one below.



Another way to help students with topics is to give students practice with restating general topics. For example, give students a worksheet having them restate such general topics as "Paparazzi" or "Japanese Sports." Ask them, "What paparazzi? When? Where? Why?" Play a game where the class competes in two teams, or in pairs, to write as many subjects as they can related to the general topic.

2) Practice Skimming and Scanning

Do a search on any topic, for example, "Tiger Woods," on Google or Yahoo. Print out the results and make a copy for each student in the class. Call their attention to how many results there were. Explain to them that there isn't enough time to look at all the websites in this result. Have them practice their skimming and scanning skills by looking over the results for websites with biographical information. Give them a time limit and have them circle three links that might help them write a report about Tiger Woods' life. Also, it is good to teach students to look at links on the first page of a website rather than to start reading. Print out a copy of the first page of any website. Teach students to look for links on the top, sides, and bottom of the page first. Think of some topics contained in those links and ask students to circle the link they think is most likely to have information on the topic you suggest.

3) Point Them in the Right Direction

If possible, tell students where to start their search. For keyword searches, robot or metasearch engines like Google, Dogpile, and Altavista are great. However, these popular search engines are less likely to bring up information from reliable sources. For academic searches try subject indexes like www.findarticles.com, www.infomine.com or www.askeric.org. If you know of an organization that has information on your student's subject, have them start there and copy down vocabulary to use in later keyword searches. I often print out a copy of the index page of the search engine, subject index, or website where I want my students to begin. I then have them write in the keywords in the correct place or circle the links that will be most helpful. This calms down some of the anxiety related to seeing all that English on the screen!

While you search:

Remind students that there is only one of you. In the lab they should have a buddy. Tell them to try and figure it out with their buddy before they ask you. Also, sending them through a web-based tutorial on basic web-browsing skills first is usually a good idea.

4) Search Only the First 10-15 Links on a Search Engine's Results Page

You don't have to explain the mechanism by which search engines' software ranks websites in the results page. (see

www.invisibleweb.com and searchenginewatch.com for more information about search engines) However, students should know that if they don't find a good link in the first 10-15 results, that they should give up and try a different search. This helps to head off frustration as well as keeping students on track.

5) Learn to Recognize "Official Links" as Opposed to Someone's Personal Website

Especially when students are using commercial search engines, it is important to help them recognize the obvious signs of an unreliable source. The following evaluation methods do not require a high language level. Start with the website address itself. If the address ends in:

- .edu (It sometimes means it is related to educational or research material. However, it could also mean that it is a student's personal webpage.)
- .gov (It usually means it is related to government resources)
- .com (It used to means it was related to commercial products. Now it can be either a personal page or a commercial page.)

Another address-related evaluation method is looking at the server name. There are some famous free website hosts that students can immediately recognize in the website address itself. Once they see those names, they usually can assume there is no official organization backing the information on the page; it is just one person's personal ideas.

- www.angelfire.com/kard/lessons.html (the angelfire is a free webhost)
- www.geocities.com/kblincoln/mossyglenn.html (geocities is a free webhost)
- hometown.aol.com (another webhost likely to be a personal page)

A third thing students can do is scroll all the way down to the bottom of the index page and check to see if there is a year or date listed for updates. A fourth thing students can judge is the basic layout and graphics. It is obvious when there are amateurish graphics or layout that the website may be unreliable.

6) Search Links at the Top, Bottom and Sides Before Reading the Material on a Website

Continually remind students to use their scanning skills as well as to look at the links at the top, bottom, and sides of a page before starting to read the page.

7) Stop After 15 Minutes and Try a NEW Approach

It is easy for students to feel overwhelmed and frustrated with this difficult process. Praise their small successes. Also, stop them from a spiraling sense of failure if, after about 15 minutes, they are unable to find pertinent websites. Tell them to get up, talk to a friend for a minute, get a sip of water, and then come back and try again with a different set of keywords, or a different subject index/search engine.

After a Good Website Is Found:

Don't let students get hung up on one site. Encourage them to find two or three sources right away. If one student finishes early, encourage them to walk around and help others rather than sit there and try to read the information right away. A noisy computer lab is not very conducive to reading in a second language anyway!

8) Once They Find a Page with Good Information, Use the Browser's Find Function to Search the Webpage for Keywords

To do this on a Windows computer, hold down control and F at the same time. On a Macintosh computer, hold down the command key and F. A little search box should appear. Type in the keyword and press enter. The keyword should be highlighted on the page. Then, copy and paste the relevant text into a word processor and print it out for later. To do this, highlight the text on the website. At the top of the screen click on Edit, and then copy. From the start button on the bottom of the screen, open the word processor. Click on Edit, and then paste. This encourages students to spend their time online actually searching instead of finding one resource and trying to read it all right away.

9) Don't Expect Students to Figure Out How to Cite or How to Quote Sources on Their Own

Provide examples with the parts labeled. A good place for this information is <http://gateway.lib.ohio-state.edu/tutor/les7/pg3.html>.

Conclusion

The best way for students to overcome their frustration with the avalanche of information online is for them to have a positive experience in their first attempts at finding information. Encourage small successes, and make sure you set appropriate goals for the age and language level of your students. Introducing students to online resources is a great gift; not only for their language learning, but also for their continuing education and life.

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