

Top Secret Recipes: Internet Search Hacks Every Student Researcher Should Know

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NUTRITION INFORMATION

Students likely use the internet to find answers on a daily basis. This class asks students to explore the advanced search capabilities of Google and introduces them to free online research tools used by successful researchers. The ability to use advanced search techniques, whether on Google or in a library database, is a transferable skill and a great starting point for lifelong learning.

NUMBERS SERVED

Serves undergraduates in classes of 15–30

COOKING TIME

Cooking time is 50 to 75 minutes

ACRL FRAMEWORK ADDRESSED

Searching as Strategic Exploration

MAIN INGREDIENTS

- Internet access for all students
- Instructor computer with projector
- Wireless keyboard (optional)
- Worksheet with search prompts

MAIN COOKING TECHNIQUE

Active learning, small-group work, and small-group presentation

PREPARATION

Create instruction worksheets that contain a mixture of 10–12 advanced Google search techniques (see examples on *Power Searching with Google*) and useful free sites like The WayBack Machine, Google Books, Google Scholar, and Flickr Creative Commons. For each technique or site, provide detailed search prompts that include the exact search terms students should type into the search engine or research tool.

After each search prompt, ask at least one question that can only be answered by doing the search correctly. At the end of the worksheet, include a section with 5–6 “real world” search scenarios that ask students to apply the search techniques they’ve learned.

COOKING METHOD

1. Introduction. Open the session by discussing various search engines, focusing on Google. Note that by using advanced search techniques and online research tools, students can get “more” out of their online research.
2. Group work. Break students into 4–5 groups. Assign each group the task of learning 2–3 search techniques from the worksheet, usually 1–2 simple Google search techniques (e.g. the site: operator or limiting search results by date)

and one more complex research tool (e.g. The WayBack Machine). Let each group know that they will be expected to demonstrate their techniques and/or websites to the class, as this generally encourages them to be well-prepared.

3. Student presentations. Have each group give a short presentation on their 2–3 search techniques and online research tools. Encourage students to demonstrate actual searches, rather than just give a report. Since the worksheets include the search prompts for each group, invite the other students to fill out the answers on their worksheets as they follow along. When warranted, provide further information on a search tool or technique. For example, after having students demonstrate how to find images using the “labeled for reuse” search feature on Google Images, I have taken a few moments to discuss common ways students interact with copyrighted material and tips for how to do so legally and ethically.
4. Applied practice. After the groups have given demonstrations, ask each group to work through the “real world” search scenarios. This gives students the chance to apply their newly learned skills. For example, I’ve asked students to find examples of how local news

organizations in Baltimore were covering Freddie Gray in the days between his arrest and death, which could be answered using either the WayBack machine or by limiting by date within Google News.

ALLERGY WARNINGS

Search interfaces and results change over time; run practice searches of all the search prompts before the session begins.

Emphasize the importance of correct spacing with advanced Google searching. For example, when attempting to limit searches using *site:.edu*, adding an extra space between *site:* and *.edu* can lead to inaccurate search results.

CHEF'S NOTE

It can be fun to infuse relevant pop culture examples in addition to ways students could use a particular technique or tool in research. For example, MTV's *Catfish* makes frequent use of Google's reverse image search, but students could also use this tool to locate the source of an image or find a higher resolution version.

ADDITIONAL RESOURCES

- *Power Searching with Google*