

Using EBSCO Resources for Research

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Introduction

Designed for high school freshmen or sophomores, this unit serves as an introduction to using library databases, specifically those available through EBSCO Discovery Service (EDS). Lessons 2-5 can also be completed using EBSCOhost and Explora, the EBSCO research experience for schools. The activities described in this unit can be completed in five 50-minute periods or three 90-minute blocks.

This unit is best delivered to students who have been assigned a research project by one of their classroom teachers. Doing so enables them to practice and develop their research skills in an authentic and meaningful context. Librarians are encouraged to modify this unit plan to best meet the needs of their students and/or the assignment.

Curriculum Standards Alignment

Common Core State Standards

- *CCSS.ELA-Literacy.WHST.9-10.7*
Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- *CCSS.ELA-Literacy.WHST.9-10.8*
Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

AASL Standards Framework for Learners

- I.A.1. - Formulating questions about a personal interest or curricular topic.
- I.D.2 - Engaging in sustained inquiry.
- IV.A.2 - Identifying possible sources of information.
- IV.A.3 - Making critical choices about information sources to use.
- IV.B.1 - Seeking a variety of sources.

- VI.A.1. - Responsibly applying information, technology, and media to learning.
- VI.B.2 - Acknowledging authorship and demonstrating respect for the intellectual property of others.

Enduring Understandings

- Academic research is fundamentally different from everyday research.
- Effective research involves an iterative inquiry process.
- Effective researchers properly cite information from their sources.

Learning Objectives

By the end of this unit, students will:

- Use the EBSCO Concept Map feature to narrow a research topic
- Understand the difference between a broad topic and a researchable topic
- Use keywords and keyword phrases to locate relevant articles for their research
- Apply database filters to narrow search results by date, source type and subject term
- Save articles to Google Drive or OneDrive
- Export citations to bibliographic management software (e.g., NoodleTools)

Materials

- Computer/laptop
- Internet
- Access to EBSCO Discovery Service (EBSCOhost and Explora will also work for Lessons 2-5)
- Student account in NoodleTools, RefWorks or other bibliographic management software
- Student Worksheet: Narrowing a Research Topic Using Concept Map

Lessons

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Lesson 1: Using EBSCO Concept Map to Narrow a Research Topic

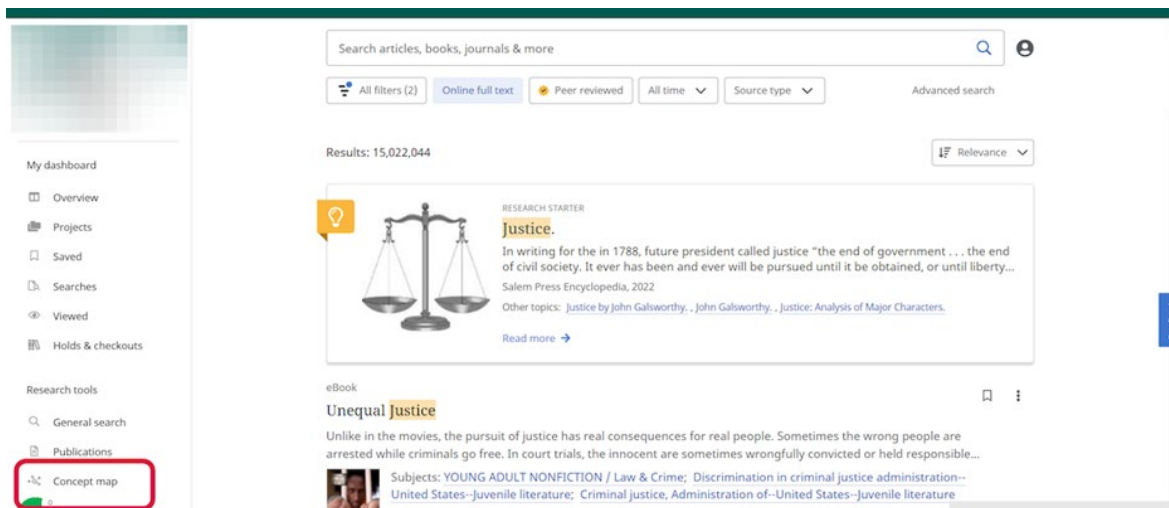
Quite often, students approach research with a topic that is the size of a wedding cake when all they truly need is a cupcake. Or, even more frustrating for students is that they have been given a prompt to research that they know little about its components or context. Both issues can cause students to freeze in their research tracks (so to speak). This lesson is designed to help give students a focus for their research, thus starting them off on the right track. The Student Worksheet accompanies this lesson, and students will pair share.

Formative Assessment

The teacher-librarian can gauge student understanding through observation and noting the kinds of questions students ask. Worksheet progress/completion can also indicate student understanding.

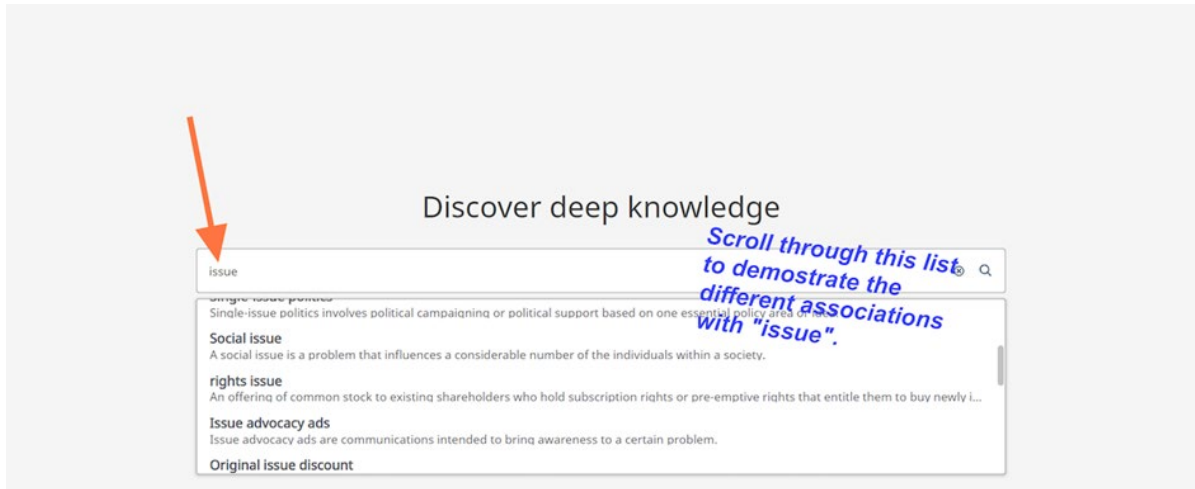
Procedure/Script:

1. Begin on the EDS home screen. Click **Concept map** in the lower left-hand corner.



2. “The first thing we are going to do is look at a single word from our prompt. Most likely this will be the MOST IMPORTANT word in the prompt, something we’ve been studying in class. Do this with me: Type justice in the search bar. DON’T HIT ENTER.”

Note: The 10 broad topics listed on the handout are good words to use as demonstrations for students. Not all topics will be in Concept Map, so it might be smart to preview some or all searches before teaching the lesson.



3. “We selected social issues from above and got this web of associated topics and ideas. This is interactive, so take a minute or two and play with it.”

Note: Teacher-librarians may want to do this together with students. Once students open Concept Map for the first time, give them a minute or two to play with it: switch it to 3D, change size, move the spokes around.

4. “On your worksheet, in Concept #1 box, let’s write down some of our thinking. We will start with the first concept we are exploring: Social Issues.”

Concept #1
Social Issue

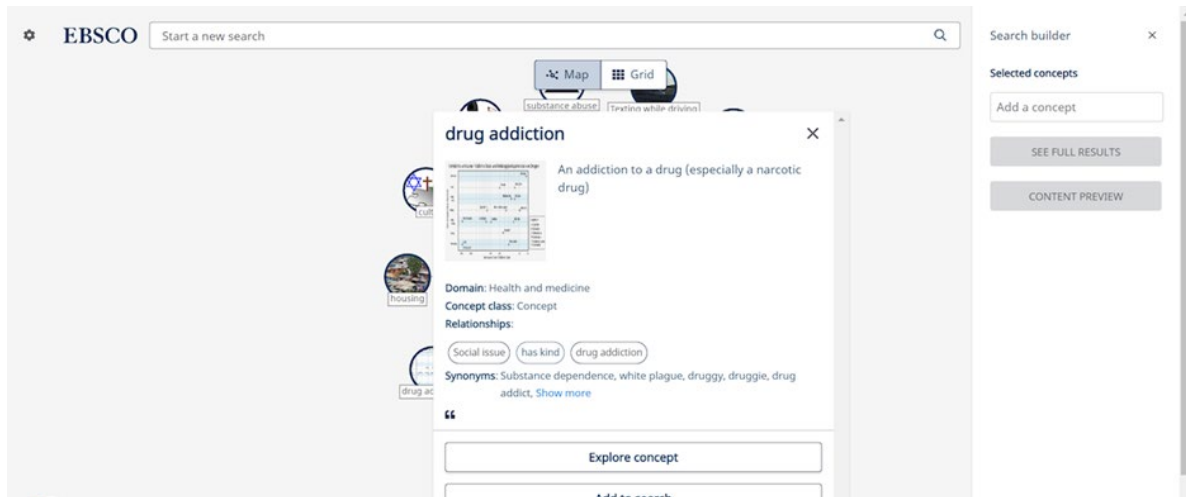
Interest #1

Interest #2

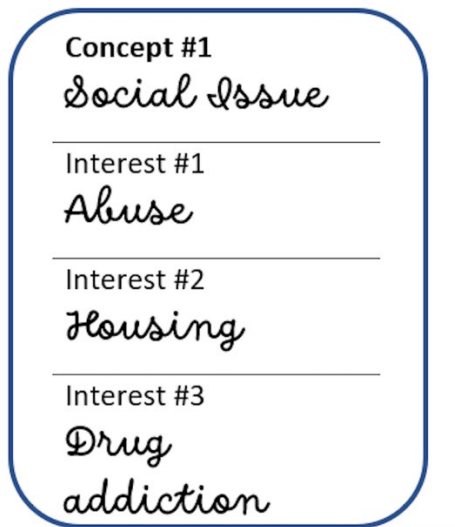
Interest #3

5. “Now, I'm going to give you three minutes to click on the topics within this map. When you click on them, a description will appear, and you can decide whether the subtopic is interesting to you. If it is, write it on your worksheet.”

Note: Only give them a few minutes. There will be obvious connectors and some that make no sense. The point is for the students to look at subtopics.

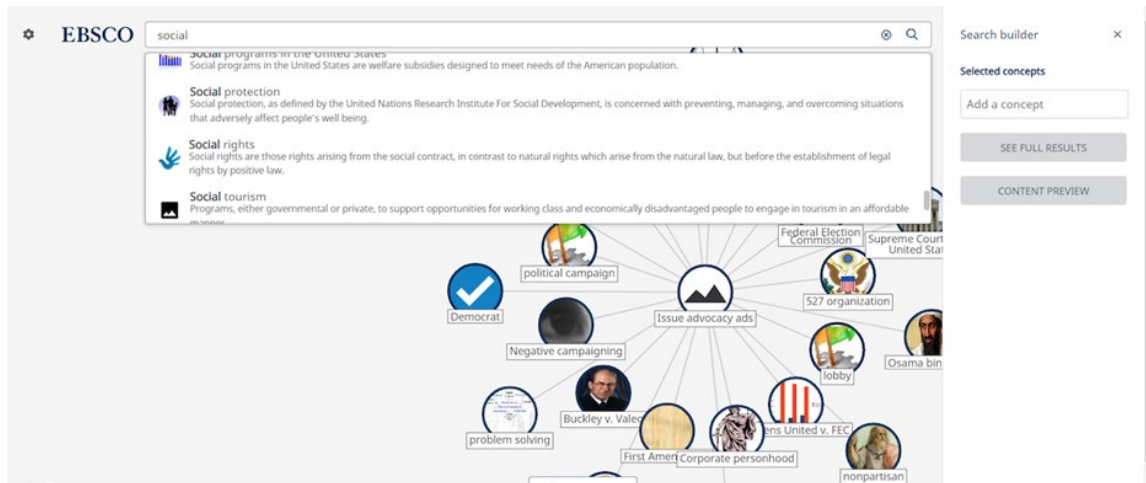


At the end of three minutes, the students' worksheets should look like the example below.



6. "Okay, so I've got some idea of social issue topics, but I think I want to look further. I'm going to go back to my search and just search 'social' this time."

Note: Depending upon the prompt or the topic, help the students to find their next general search term and then repeat the process on their own. The goal is to attack the prompt/topic from two different angles.



7. “Let's take a breather here. You now have six subtopics on your worksheet. Take 15 seconds to look them over. Focus on one. Share it with your partner.”

Note: This gives students a break from staring at a computer. After the pair share, students can do the Quick Write found on their worksheets.

8. “Now let's find out a little more about our own Focus topics. We're going back to Concept Map and doing a new search. That search will be the Focus word you put at the top of the Focus column on your worksheet.”

Focus
Drug addiction

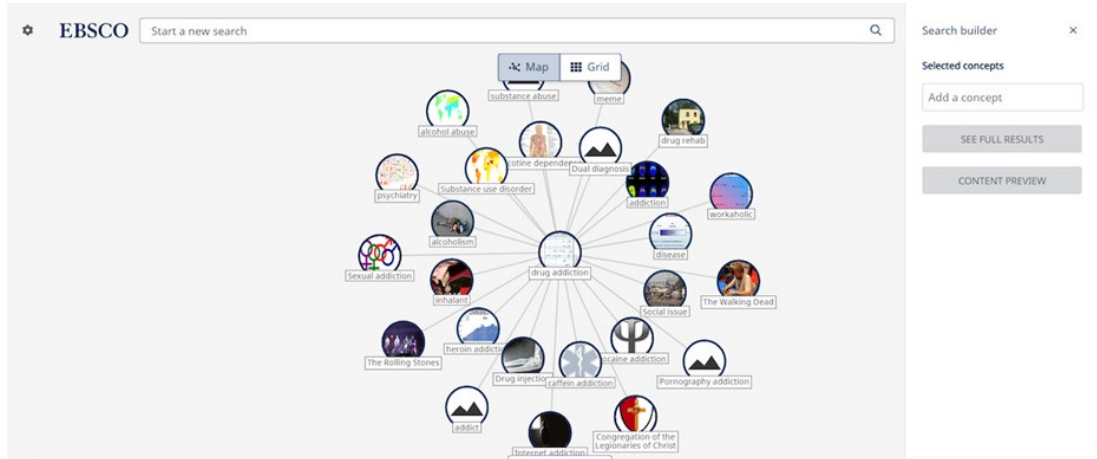
Domain #1

Domain #2

Domain #3

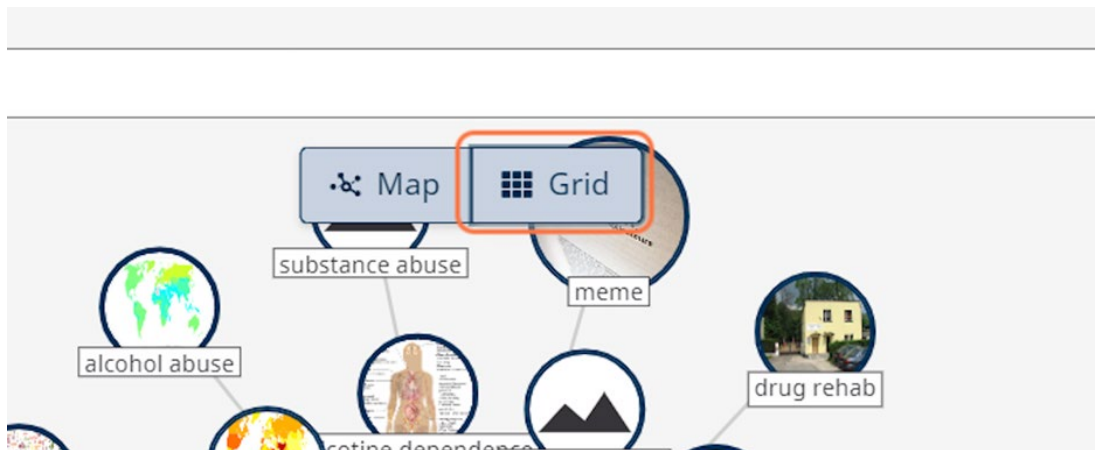
9. “You can do this one of two ways: If the circle is still a spoke on your screen, click on it and then click the **Explore concept** button. Otherwise, do a new search using your focus term.”

Note: You may want to model this step prior to turning the students loose. This will most likely cause confusion. You may also direct them to conduct a new search.

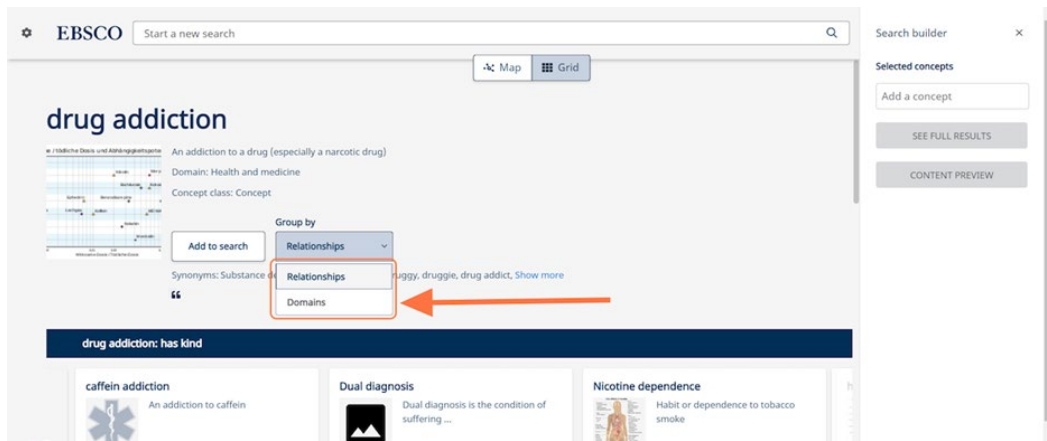


10. Instruct students as follows:

- a. At the top of the Concept Map, click on **Grid**.



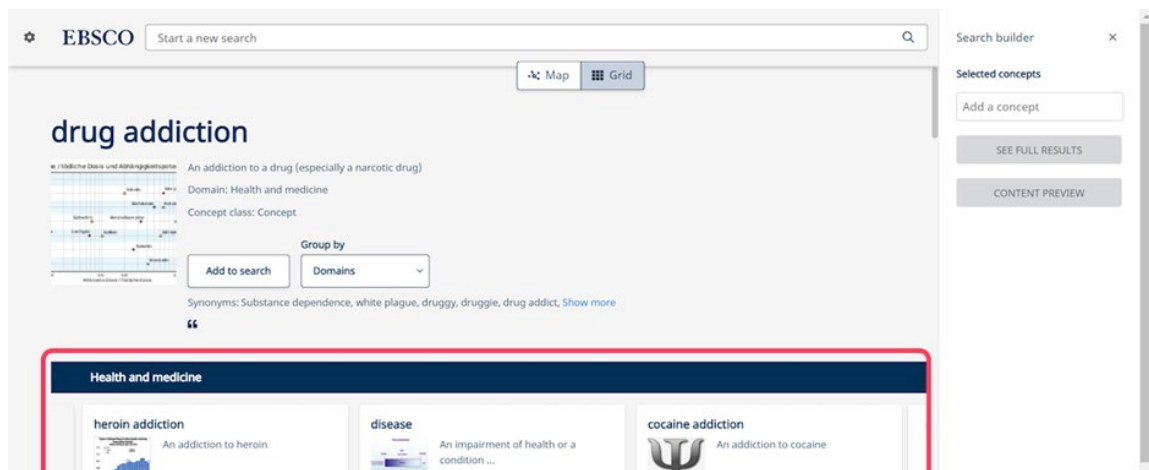
b. Change "Group by" Relationships to **Domains**



“I'm going to scroll through the domains (a field of thought) to see where I might like to focus my research. Write those domains on your worksheet in the Focus column.”

Note: Here's where students should find their contexts for evidence.

“For example, I'm going to talk about drug addiction and how it impacts the medical field. I can use these to look for evidence.”



11. The final step is for students to write their tentative thesis: “What *about* my topic will my research explore?”

Note: Work with the ELA/classroom teacher to have students conclude the lesson by writing a tentative thesis on their worksheet.

Lesson 2: Basic Record Functions

This lesson walks students through the basic features of the EBSCO search experience, including Research Starters in EDS (called Topic Overviews in Explora), opening a record, looking at the record details (and the subject terms), and accessing a record. After accessing the record, students will be able to download it, cite it and translate it (if needed).

This lesson should include a 10-minute demo from the librarian, with students following along. Then students can spend another 10 minutes finding an article and exploring its detailed record.

Formative Assessment

Students successfully find one article and save it to their computer desktop, My dashboard, Google Drive or OneDrive.

Procedure / Script

1. **Keyword Search:** Ask students to search “cybersecurity” and peruse the list of results.

“For a broad topic, a single word search might produce a Research Starter (or Topic Overview in Explora) at the top of the result list. These are great places to get background information on your topic and find possible additional resources. In this case, EDS gives us two options: a Publication (which we will tuck into the back of our brains for later research) and a Research Starter. Let’s open the Research Starter by clicking on the title.”

The screenshot displays the EBSCO search interface. At the top, a search bar contains the term "cybersecurity". Below the search bar, there are filter buttons for "All filters (2)", "Online full text", and "Peer reviewed". The search results are displayed in a list format. The first result is a "PUBLICATION" titled "Cybersecurity" from a "Journal". The second result is a "RESEARCH STARTER" titled "Cybersecurity". The Research Starter result is highlighted with a purple box and contains the following text: "By the late 1990s the Internet dominated the global communication landscape. In 1993, only about 1 ... Salem Press Encyclopedia, 2022. Other topics: Computer Security. Read more ->". A "Feedback" button is visible on the right side of the page.

Note: If you are starting from scratch with freshmen, I would recommend displaying your screen and walking them through it with you.

2. Detailed Record Page

“The first thing you will see is a detailed record page. This gives us a little hint about the article. We know it comes from an encyclopedia and by reading the abstract, we can get a bit of a timeline.”

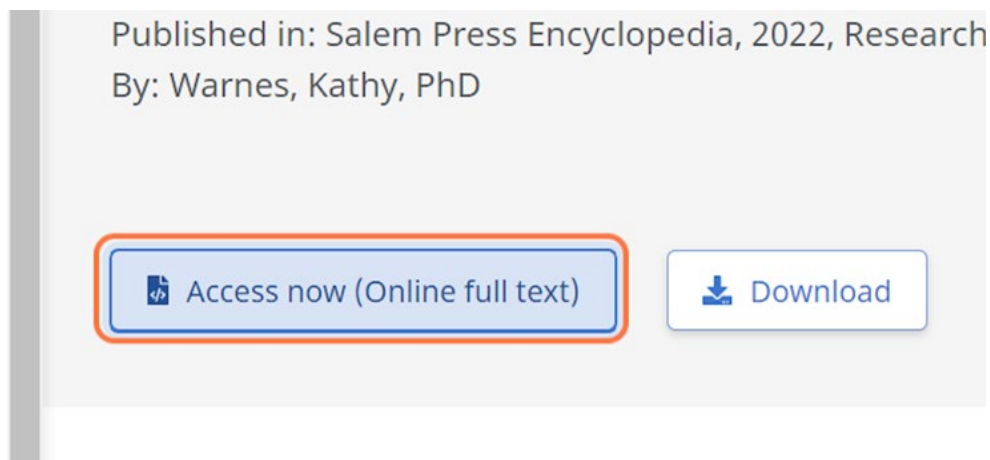
Note: Freshmen and sophomores struggle with introductions. Research Starters/Topic Overviews and reference articles are great to use as a summary/background for an introductory paragraph.

A screenshot of a search result page for 'cybersecurity'. The search bar at the top contains the word 'cybersecurity'. Below the search bar, the page is organized into sections: 'Source' (Salem Press Encyclopedia, 2022. 1p.), 'Document Type' (Article), 'Subject Terms' (Internet security), and 'Abstract'. Two orange arrows point to the 'Source' and 'Abstract' sections respectively. A vertical 'Feedback' button is visible on the right side of the page.

“Additionally, and here's one of the genius things about a database, someone much smarter than me has linked similar articles. If you look at the Subject Terms, you'll find more keywords to search.”

A screenshot of a search result page for 'cybersecurity', identical to the one above. In this view, an orange arrow points to the 'Subject Terms' section, which contains the link 'Internet security'. The 'Source' and 'Abstract' sections are also visible but not highlighted.

3. **Article:** Instruct students to click the **Access Now (Online full text)** button. (Decide with the classroom teacher whether you want the kids to download articles from the start.)



“The first thing you'll notice is that the article itself contains hyperlinked text. This is another way to search the databases laterally. Clicking on the hypertext will take you to other Research Starters/Topic Overviews.”

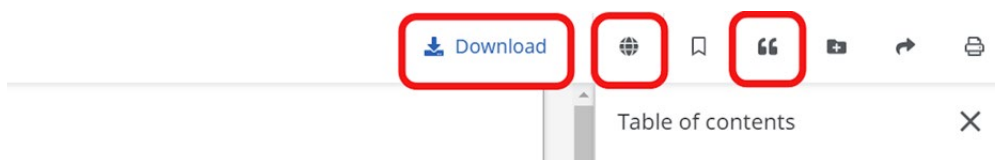
Note: This is a ton of info for students. You may want to skip this step depending on the class. You may also want to suggest checking out the references at the end of the article — more resources for students to find.



4. Tools

“Now we are going to take a look at the most important tools within an article — **download** (or email), **cite** and **translate**.”

Note: Download or email will depend upon your school's computer situation. If you can manage to instill in freshmen and sophomores to download everything and cite (and save it) everything, you will save years of re-teaching.



a. Download

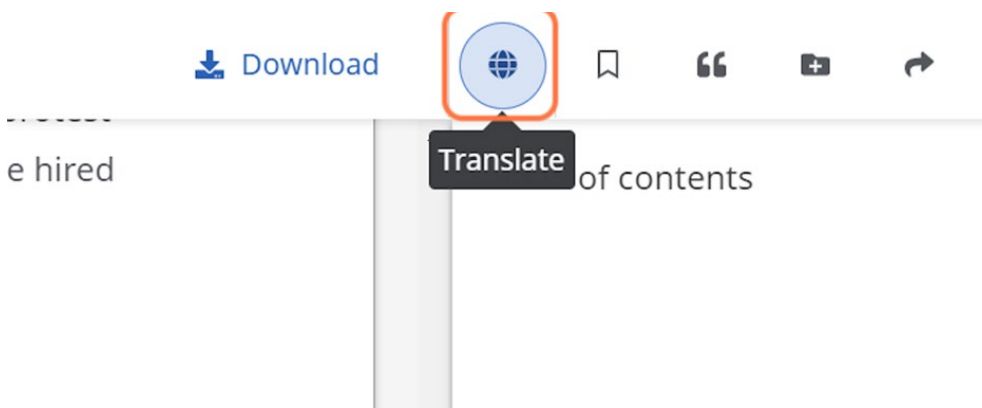
“To save the article, click **Download** link.” Note: Students will want to save or bookmark the URL — they don't understand that link may change! Tell them that this is faster and safer.

“Choose **Online full text** or **PDF**. Metadata will not get the full article!”

Finish up by showing students where to save it once it's downloaded or emailed.

b. Translate

Note: Depending on your class, you may not need this demonstration; however, this is also a good tool for foreign language teachers that need texts.

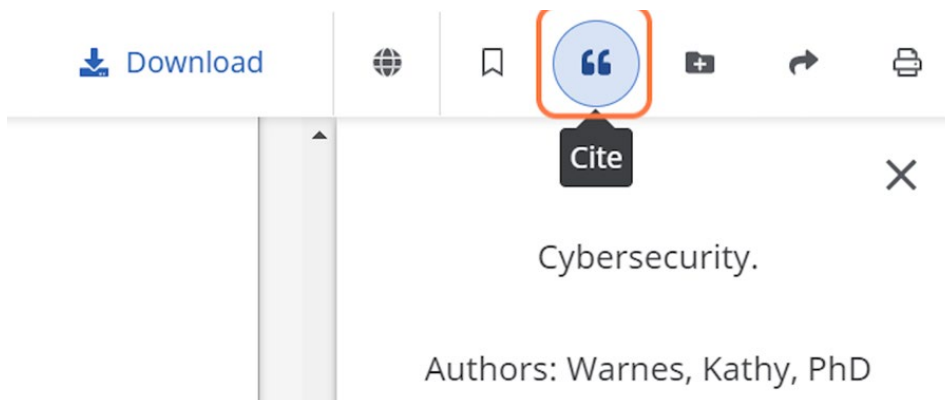


Choose the translation language from the dropdown. Once the translation is rendered, download the file.

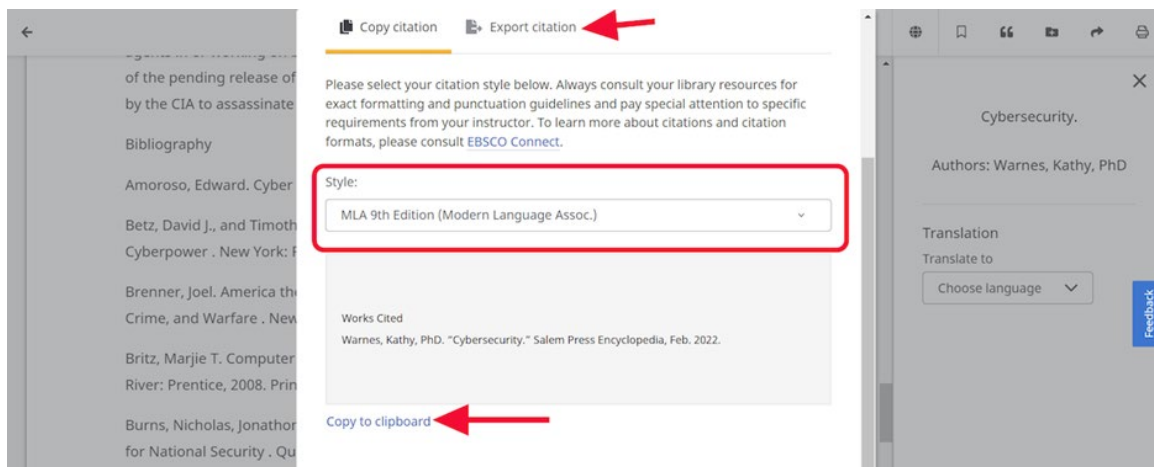
c. Cite

“Finally, here's the best thing about a database — the pre-built citation. Click on the **Cite** button.

Note: Stress to students that most of the databases have this symbol somewhere — look for it and use it.



“Change the citation type to MLA.”



Note: Generally, this is what an English class will use. Students can either copy the citation and paste it into Word or Export the citation depending upon what bibliographic software your school uses (if any). This feature will be covered in more depth in Lesson 5.

Lesson 3: Boolean Searching

This is a basic Boolean lesson introducing the phrase search and the Boolean operator "AND." After this lesson, students should complete the keyword creator worksheet and begin their own search. This lesson should take a total of 40 minutes: 20 minutes of instruction and 20 minutes of students working independently or in pairs.

Formative Assessment

After students have had some time to conduct keyword searches, the teacher-librarian can check in with students as a class, asking them to raise their hands if they have found at least one resource, keep their hands raised if they have found two resources, three resources, etc.

Additionally, students should jot down on an index card two of the searches they conducted. Instruct them to include type of search, terms used, and number of relevant results.

Procedure / Script

1. Natural Language Searching

“Google has taught us to type a question in the search box and we get an answer. So, let's see how that works in a database.” To demonstrate, type: “What are the United States weak areas in cybersecurity” into the EDS/Explora/EBSCOhost search box.

“There are two things to draw attention to: the first is the number of results. Second, look at the first record. Is it usable? Scroll further down the page. You'll notice that many of the results may have only one of the search terms, maybe two. This is a lot of work to sift through.”

The screenshot shows a search interface with the following elements:

- Search bar: "what are the United States weak areas in cybersecurity"
- Filters: "All filters (2)", "Online full text", "Peer reviewed"
- Advanced search options
- Results: 7,716
- Sort: Relevance
- First result: "Peer reviewed | Article" titled "WHAT MAKES ONE INTRINSICALLY INTERESTED IN IT? AN EXPLORATORY STUDY ON INFLUENCES OF AUTISTIC TENDENCY AND GENDER IN THE U.S. AND INDIA."
- Article snippet: "To increase diversity and inclusion in IT enrollment and employment, we must first answer the question: What makes one intrinsically interested in technology in the first place? To the extent that one's choice of an IT education and..."
- Subjects: "Information technology; India; United States; Computer Training; Autism; Gender inequality; +3 more"
- Published in: "MIS Quarterly, Sep2022, Business Source Elite"

2. Keyword Searching

“So, we are going to work smarter. We are going to use keywords to search in EBSCO/Explora. (You can search Google more efficiently with them, too). As we've already searched cybersecurity, we now want to look at it within the United States. We know the results will be a lot bigger, but they will be more applicable. We use the Boolean operator AND to tell EBSCO to bring us ONLY the results with cybersecurity and United States in the article.”



“Yikes! Almost half a million results? (Numbers will vary; adjust script accordingly.) I'm never going to be able to look through all of those. I'm going to add another search term. Let's see if I can get rid of some of these results. To do this, I will need to use another AND.”



“I have a what (cybersecurity) and a where (US). Let's try a who or a how? I think I want to know more about threats to transportation/power/communications. The big term for that is infrastructure. Notice I use another AND.”

Note: You could break it down to actual transportation or power or communications. It's all about getting the students to think laterally about their topics.



“Okay, that gave me [x number] results. Not bad.”

The screenshot shows a search interface with the query 'cybersecurity and United States and infrastructure' in the search bar. Below the search bar, there are filter buttons: 'All filters (2)', 'Online full text', and 'Peer reviewed'. The results count is 'Results: 164,650'. A dropdown menu for 'Relevance' is visible. The first search result is titled 'United States Cybersecurity and Infrastructure Security Agency (CISA) Fiscal Year 2023 Budget Assessment'. The snippet below the title reads: 'M2 PRESSWIRE-September 28, 2022-: United States Cybersecurity and Infrastructure Security Agency (CISA) Fiscal Year 2023 Budget Assessment (C)1994-2022 M2 COMMUNICATIONS RDATE:28092022 The 'US Cybersecurity and ...'. The subjects listed are: 'United States. Department of Homeland Security; Data security; Infrastructure (Economics); Internet -- Safety and security measures; Cyberterrorism; Internet security; +4 more'. A 'Feedback' button is located on the right side of the page.

Note: The next two screens will be different "who" and "how." This will further show students that the search is infinitely malleable. Results are there *if* they start to think laterally.

“Let's make the "who" government.”

“Let's make the "how" privacy. (How are we going to look at it? Through the lens of privacy.)”

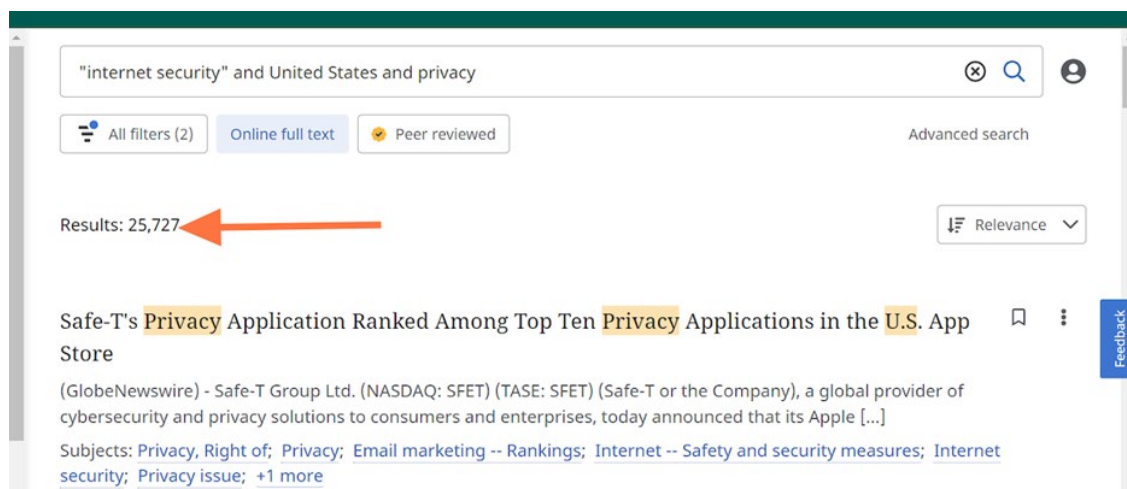
The screenshot shows a search interface with the query 'cybersecurity and United States and privacy' in the search bar. Below the search bar, there are filter buttons: 'All filters (2)', 'Online full text', and 'Peer reviewed'. The results count is 'Results: 87,747'. A dropdown menu for 'Relevance' is visible. The first search result is titled 'United States : NASA Awards Contract for Cybersecurity, Privacy Enterprise Solutions'. The snippet below the title reads: 'NASA has awarded the Cybersecurity and Privacy Enterprise Solutions and Services (CyPrESS) contract to Booz Allen Hamilton of McLean, Virginia. CyPrESS is a cost plus award fee core and hybrid [...]'. The subjects listed are: 'United States; Internet security; Data security issue; Contract agreement; Privacy issue; Business consul-'. A 'Feedback' button is located on the right side of the page.

“Remember when we looked at the record for the Cybersecurity Research Starter? We were going to remember the term *internet security*. Let's try that instead of *cybersecurity*. We are also going to add phrase searching here. Notice that I'm going to put quotation marks around my phrase.”

Notes:

- Students will put quotation marks around everything, even single words. It may be a good idea to break out here and do a quick slide on what is a phrase and what isn't.
- You will need to explain that a phrase search tells EBSCO/Explora to find articles that contain what is inside of the quotation marks together. If the article contains the words together, it will appear. If the article contains the words, but they are not together, students will not see the record.

“Now try a different how (through the lens of privacy). Again, the idea is to search laterally.”



"internet security" and United States and privacy

All filters (2) Online full text Peer reviewed Advanced search

Results: 25,727

Relevance

Safe-T's Privacy Application Ranked Among Top Ten Privacy Applications in the U.S. App Store

(GlobeNewswire) - Safe-T Group Ltd. (NASDAQ: SFET) (TASE: SFET) (Safe-T or the Company), a global provider of cybersecurity and privacy solutions to consumers and enterprises, today announced that its Apple [...]

Subjects: [Privacy](#), [Right of](#); [Privacy](#); [Email marketing -- Rankings](#); [Internet -- Safety and security measures](#); [Internet security](#); [Privacy issue](#); +1 more

Lesson 4: Using Database Filters

This lesson teaches students how to use three filters (two common and one under-used) in EDS, EBSCOhost and Explora. This lesson includes 10-15 minutes of instruction. The remainder of the class period can be devoted to students conducting their own searches.

Formative assessment

Students will indicate on an index card their search terms/phrases, types of filters applied, and number of search results.

Procedure / Script

Say to students: “The key to an effective search is to start with good search terms. Using database filters will help you narrow your results even further. Filters get rid of the results you don't want. Once you have completed your initial search, click on the **All filters** button.”

Note: The **All filters** button will change depending upon how your school has set up your EBSCO profile. Having only "online full text" and "at my library" are best when they are defaults. It's one less thing for students (and librarians) to remember.

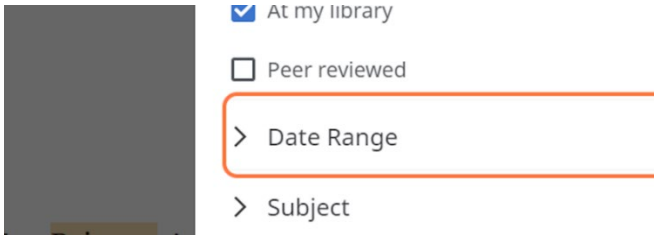


1. Filter 1: Date Range

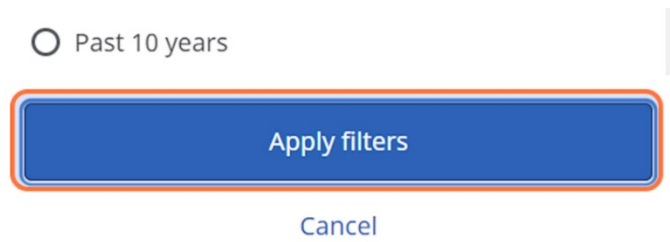
“The first filter we'll explore is **Date Range**. Clicking on this filter will allow you to choose the publication range for your articles.”

Note: Date range is dictated sometimes by the teacher and sometimes by the topic itself.

Articles about topics such as medicine, technology and social media should be limited to the most recent three to five years.



“Once you have made your selection, click on **Apply filters.**”

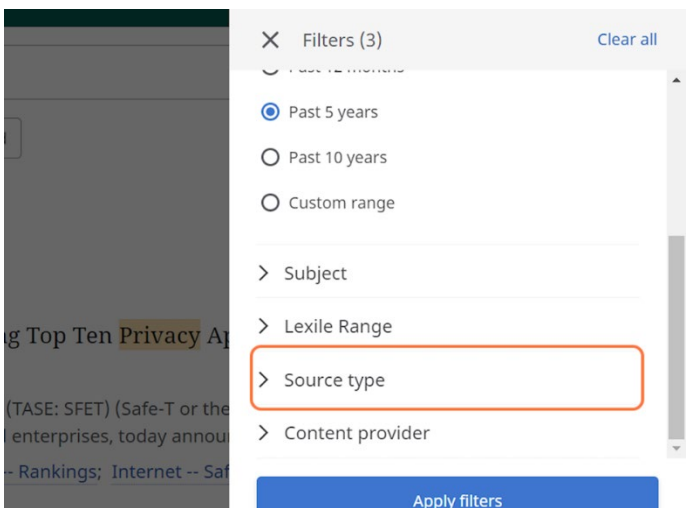


“Notice the results. We've eliminated thousands of articles using that filter. I think we can do better, though. Let's click on **All filters** again.”

Note: You might want to tell students that they can also use this type of date filter in Google (makes filter use "universal").

2. Filter 2: Source Type

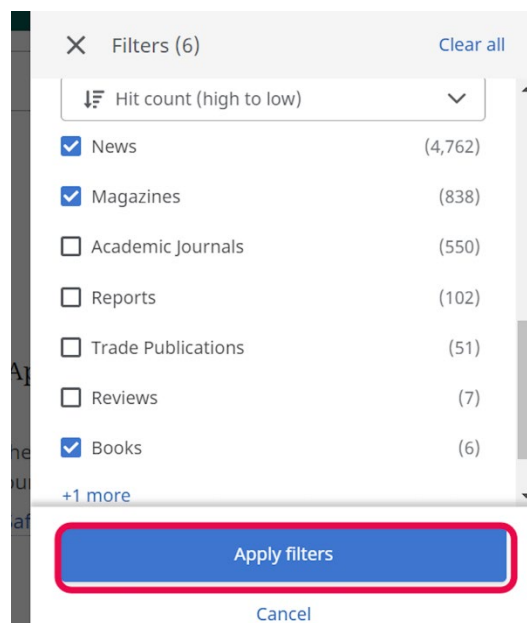
“This time, we are going to select what type of article we want to look at. Click on **Source type.**”



“Select the three source types most likely to help us in this initial search: **News**, **Magazines** and **Books**. We can always come back and check out other sources, but these are great places to start our research.”

Notes:

- Students may need to click the **+x more** link to expose all available Source types.
- You might explain that academic journals are super hard to read. They might also deselect News. Depending on their topic, the News source type will return a lot of super short articles that might not be helpful.
- You can also usually instruct English students conducting research on literature to deselect Reviews as these are typically articles reviewing another work.



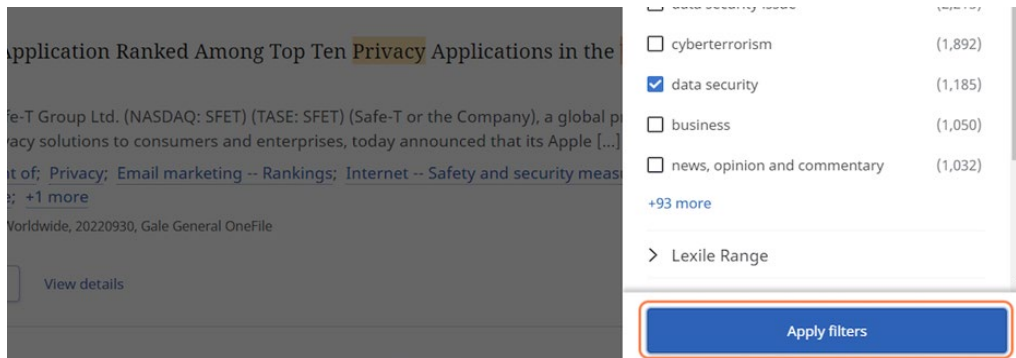
“Well, that didn't knock out a lot of articles, but we're down *x number* from where we started. Notice that the **All filters** button now numbers six filters (and that took about a minute to do). We've got one more filter to add, so click on the **All filters** button one more time.”

3. Filter 3: Subject

“The Subject filter is where databases shine. Somewhere in the background, someone has sorted all my articles into subtopics for me. If I'm not sure what I want to investigate, here's my list. If I know, I can search for it here as well.”

Note: Again, point out the +x more line. This can help students find more niche sub-topics. Recommend choosing only one topic at a time. They can always change subjects.

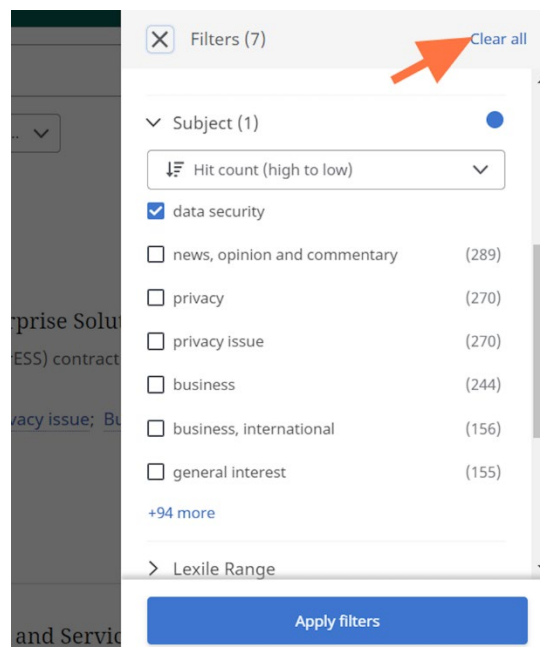
“Select your chosen subject term and apply the filter.”



4. Wrap up

“We used five filters, and about two minutes of time, to get rid of around tens of thousands of records. Will we look at all the records that remain? No. But the key here is that what we do look at is much more likely to be something we can use!”

“If you want to change a filter, then click on the **All filters** button, unclick the filter you want to change, click on the new filter, and Apply filters. OR, you can clear them all and start again. (That's why we call it RE-search!)”



Lesson 5: Exporting Citations to NoodleTools

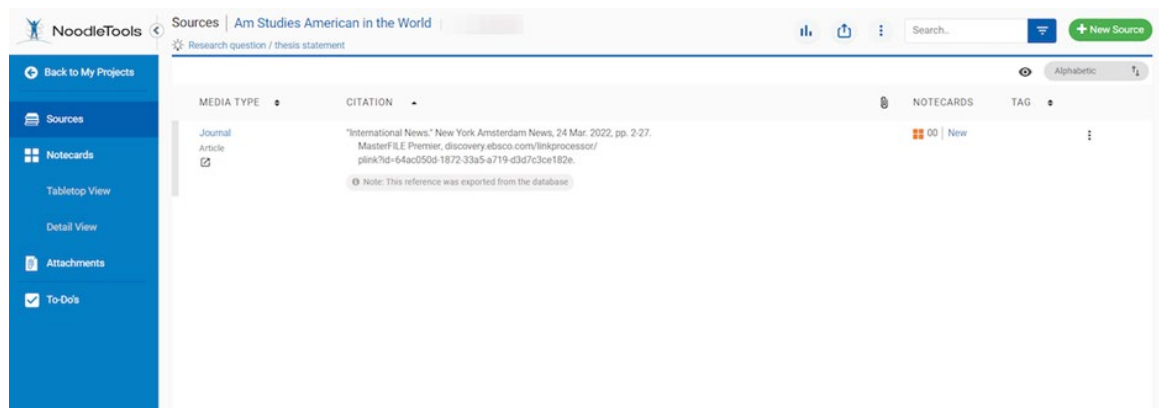
One of the many benefits of using a database is that citations (in multiple citation formats) are already built. Creating correct works cited citations (and consequently parenthetical citations) is often a hurdle for beginning researchers. This quick lesson explains the benefits of using citation software (specifically NoodleTools) in conjunction with database searching.

Summative assessment: The student integrates relevant articles into the research paper, and uses proper citation format (MLA, APA, etc.) on their works cited page or in an annotated bibliography.

Procedure / Script

1. Open NoodleTools and create a project. Open that project and leave the tab open.

Beginning researchers might not understand what NoodleTools is or why we use it. If you compare it to using a calculator in math class and keep the emphasis on it being a tool.



2. Once you've located a record, look on the top row for the quotation mark and click on it.

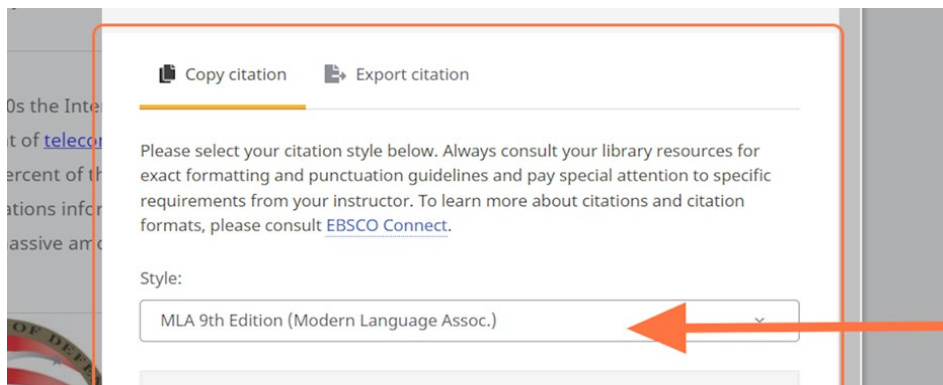
Ask all the students to do this step with the instructor so that they don't forget what to do when they are on their own.



- Have the students do this next part with you.

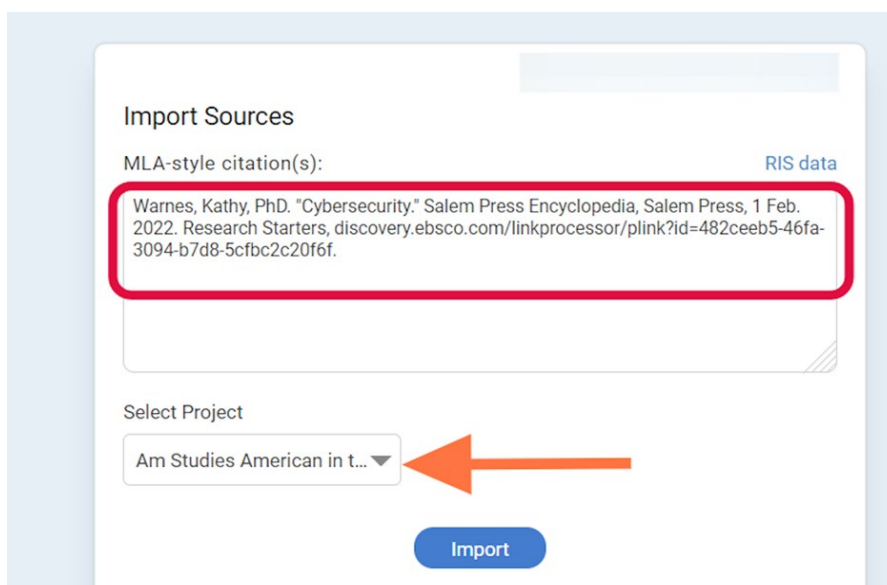
“A dialog box will open and the first option will be to copy the citation; we're not going to do that! We want an MLA citation because we are in English class, so the first thing we are going to do is switch the style of the citation using the drop-down box.”

Note: It may be worth a short discussion here of citation styles. “The essential idea is that we give credit to the original source of the information regardless of where the periods, commas and italics go.”

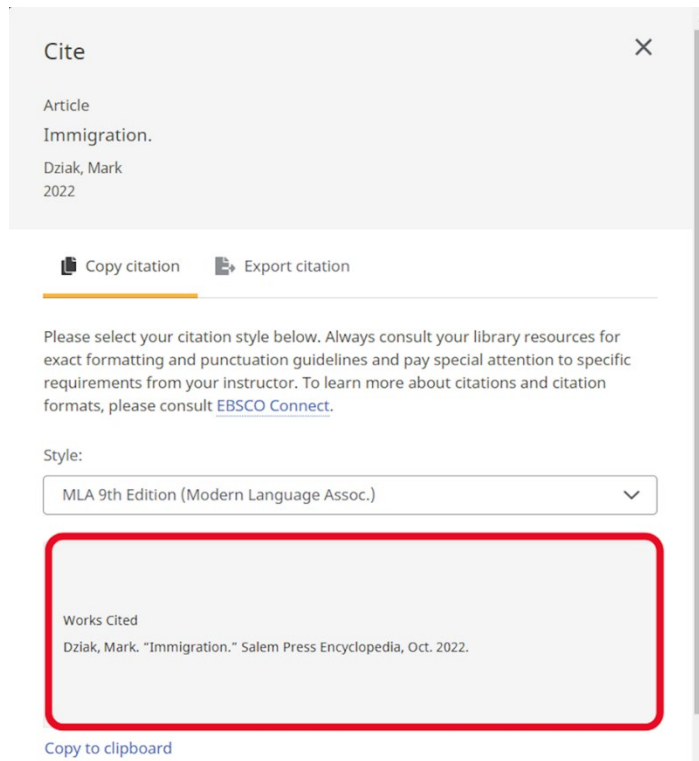


- Instruct students to click **Export Citation** and choose **Export to NoodleTools**. A new screen will open. (This will only happen if a student is logged in to NoodleTools at the same time.)

“Double check the citation and make sure the correct project is showing in the box before you click **Import**.”



Note: Sometimes the citation does not look reliable (see next screenshot). Ask students to always check it in NoodleTools. If they have questions concerning a citation, ask students to consult with the teacher or librarian.



The screenshot shows a 'Cite' window with a close button (X) in the top right corner. The citation details are: Article 'Immigration.' by Dziak, Mark, 2022. Below the details are two buttons: 'Copy citation' and 'Export citation'. A horizontal line separates the buttons from the instructions: 'Please select your citation style below. Always consult your library resources for exact formatting and punctuation guidelines and pay special attention to specific requirements from your instructor. To learn more about citations and citation formats, please consult [EBSCO Connect](#).' Below the instructions is a 'Style:' dropdown menu set to 'MLA 9th Edition (Modern Language Assoc.)'. A red rectangular box highlights the 'Works Cited' section, which contains the citation: 'Dziak, Mark. "Immigration." Salem Press Encyclopedia, Oct. 2022.' At the bottom left of the window is a 'Copy to clipboard' link.

“If your citation is successfully imported to NoodleTools, you'll see a success message in a green box.”

1 citation imported into project Am Studies American in the World

Import Sources

MLA-style citation(s): RIS data

Warnes, Kathy, PhD. "Cybersecurity." Salem Press Encyclopedia, Salem Press, 1 Feb. 2022. Research Starters, discovery.ebsco.com/linkprocessor/plink?id=482ceeb5-46fa-3094-b7d8-5cfbc2c20f6f.

Select Project

Am Studies American in t... ▼

Import

5. Go back to NoodleTools, refresh your page, and double check that the source is actually there.

NoodleTools Sources | Am Studies American in the World

Research question / thesis statement

Alphabetic

MEDIA TYPE	CITATION	NOTECARDS	TAG
Journal Article	"International News." New York Amsterdam News, 24 Mar. 2022, pp. 2-27. MasterFILE Premier, discovery.ebsco.com/linkprocessor/plink?id=64ac050d-1872-33a5-a719-d3d7c3ce182e.	00 New	
Reference Article/Entry	Warnes, Kathy, PhD. "Cybersecurity." Salem Press Encyclopedia, Salem Press, 1 Feb. 2022. Research Starters, discovery.ebsco.com/linkprocessor/plink?id=482ceeb5-46fa-3094-b7d8-5cfbc2c20f6f.	00 New	