

# IL-Core Teaching Guides

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## Getting Started with Research

### Why Information Literacy Matters

For resources to teach students about the role of information in contemporary life and the significance of information literacy, refer to:

- Tutorial: Why Information Literacy Matters
- Tutorial: Why Thinking Matters
- Video: Life in the Information Age
- Tutorial: Information Has Value
- Video: Data, Information, and Knowledge
- Tutorial: Why Does Visual Literacy Matter?

### DISCUSSION TOPICS

#### Sharing Information

How do students share findings? Research papers, social media, conversations, etc.? Do they understand their place in the larger world of information and progress? Brainstorm avenues of sharing or packaging information for others. What about ethics when it comes to information sharing, including both scholarly information and personal information in a digital environment? How does society factor into sharing

information? Societal factors may be a worthwhile perspective when considering various countries' censorship issues.

### **What is Information Literacy?**

Have students brainstorm the meaning of information literacy. This can take place as a classroom discussion or as small group discussions. Expanded discussion might include the definition/nature of information, how information is conveyed and used, and the definition of "literacy" in this instance. How do other forms of literacy contribute or relate to information literacy (such as visual literacy and digital literacy)?

### **Breaking Down Information Literacy Elements**

Utilizing IL standards and/or threshold concepts, break down IL as steps or theories based on the nature of class or student level. An example might be dividing IL into the following "steps":

- Recognizing an information need
- Knowing where to look for information (how to look, resources available—library, Internet, people, etc.—what can they use?, why should they use these resources?, etc.)
- Evaluating information (including gray areas of information)
- Using information, ethics, and so on.

The dissecting of IL skills may depend on class time, student level, subject focus, or other factors.

### **The Nature of Information/What is Information?**

Have students brainstorm ideas about the nature of information. Some discussion starters might include: information vs. knowledge, information vs. data, does information have to be factual to be considered information?, and how is information conveyed/transmitted? These questions lend themselves to discussions of printed information, images/art, body language, spoken language, etc. This may be a rich area to explore and can be used across a variety of disciplines.

### **Focus on Learning New Skills**

Information literacy requires us to learn new skills and technologies in order to access and share information. What technologies have students encountered or would like to learn more about when it comes to access, evaluation, and sharing information?

### **Lifelong Learning**

Discuss the following: "A broad term that encompasses the full spectrum of an individual's educational experiences from traditional school to other forms of learning, which may include non-formal, informal, and self-directed learning. The term is often used in connection with adult education in the higher-education setting. It also is used in the occupational and professional development setting. Lifelong learning refers to a lifelong commitment to continual learning and personal development and improvement."

## **Why/How are Information Literacy Skills Important in the Workplace?**

Have students discuss ways in which IL skills could apply to their ideal jobs after graduation. Technology skills also factor into this discussion.

Discussion options: Develop a humorous list of made-up symptoms and have the students discuss IL skills as a process of discovery. If they have a set of symptoms, what is their information need? Where can they go for information? Where should they go for information? Are some sources of information better than others? Why? Are some sources gray—not necessarily wrong or right? How do they evaluate the information they find? How would they evaluate their doctor’s diagnosis? Are there ethical implications of the information they've discovered? Should they use the newfound information to diagnose others with similar symptoms?

### **ACTIVITY**

#### **Information Log**

Ask the student to record any piece of information he/she looked up (or wanted to look up) over the course of the day. Examples: What is being served at the cafeteria or café, how much something costs, when the next bus is scheduled to depart, or the due date of an assignment.

Alternatively, ask students to keep a log of questions asked by others. How do they respond to others’ questions? How do they help others find information? These activities also can lead to research topics and discussions on the social nature of information. You can make concept maps in large or small groups.

## **Getting Started with Research**

If your students are beginning a research assignment, refer to:

- Video: Creating a Research Plan
- Video: Framing a Problem
- Tutorial: Search Techniques Part 1 and 2

### **DISCUSSION TOPICS**

#### **Research Planning**

Information overload can be a major roadblock in the research process. This discussion will help students conceptualize a research pathway and brainstorm solutions to common research challenges.

Begin by asking students to consider a recent research project. What was the topic? How did they develop a research question and locate sources? Next, have the students form pairs to discuss their common research setbacks to share with the group. Based on student input, come up with a list of common challenges and ask students to brainstorm solutions.

#### **Search Strategies**

Most students are familiar with search engines such as Google, but it's important they move beyond using a single search tool. This discussion will help students identify familiar research tools and additional resources to use in their search process. Begin by asking students to describe how they access information for school, work, or entertainment. Next, have your students select a search tool they are familiar with, such as Google or an online encyclopedia, and discuss its strengths and weaknesses. Use the following prompts to encourage student analysis of their chosen search tool:

- How easy is it to find and share information using this tool?
- How quickly can you get relevant results?
- Are there certain types of information this tool locates better than others?
- Is there an advanced search option? Describe a situation in which you would use advanced search.

Use this discussion to segue into using academic search tools as an additional resource to those identified by your students. Encourage students to use multiple search tools based on their information need and the stage of the research process.

## **ACTIVITIES**

### **Research Planning**

To prevent frustration or information overload, it's a good idea to use a research roadmap. Help students work through common sticking points by creating an if/then map to guide their research process. This activity can be completed on a whiteboard with the whole class, or students can complete it individually on paper.

First ask students to identify the key stages of research. For each stage, have students create a checklist of tasks they already should have completed (for example, before diving into background research, students should have reviewed their research assignment and identified key topics and subtopics). Provide additional research challenges (like encountering a contradictory argument) and ask students to come up with solutions using a flow chart.

### **Framing a Problem**

If your students are having trouble formulating a research question for assignments, start with a short discussion using a timely or popular topic such as technology or entertainment (e.g. free tuition to four-year college proposals or the effects of smartphones on interpersonal relationships). Students should form small groups to discuss the following questions:

- What do you already know about the topic?
- What else would you like to know about the topic?
- Have any personal experiences influenced the way you interpret the topic?

Next, have each group come up with one open-ended question and one close-ended question related to their topic to share with the class.

### **Keyword**

Locating the most relevant results relies on using the right combination of keywords. For this activity, divide students up into small groups. Assign each group a high level topic and a subtopic; for example:

*artificial intelligence* and *self-driving cars*. Students then will brainstorm a list of keywords for both the topic and subtopic.

Using a database or Google Scholar, students will run a keyword search to locate at least 3 sources on their high-level topic and at least 2 sources on their subtopic to share with the class. Encourage students to revise their keyword lists based on their research findings (replacing *self-driving cars* with *autonomous vehicles*, for example). Students should be able to report on the accuracy of their initial keyword list and any changes made during the search process.

## Research Mechanics and Writing Fundamentals

If your students are newcomers to conducting research and you want to give them background into the fundamental mechanics of research, including a general overview of common research processes and methods, writing basics, and source types, refer to:

- Video: Research Process
- Video: Primary and Secondary Research
- Video: How to Read Scholarly Materials
- Tutorial: How to Read Scholarly Materials
- Video: Anatomy of a Research Paper
- Tutorial: Source Types
- Video: Types of Sources
- Video: Writing Help

### DISCUSSION TOPIC

#### Writing Skills

What are some skills that you can utilize to improve your writing? Can you list the elements and steps of the writing process? Take a minute to outline your own personal writing process. What are your good habits? What about your bad habits? Does any part of this process strike you as being more helpful than others? How can honing good writing habits impact your everyday life? Where can you go to get help with your writing assignments on campus? What should you expect from a help session? What should you come prepared with?

### ACTIVITIES

#### Primary Research

Has anyone done primary research? Have students share experiences about how the experience was valuable and/or what they wish they knew at the beginning of the process. Students may have conducted interviews, created surveys, or worked in a lab. How do these experiences inform their assumptions about research? How do students view other research methods outside their chosen field?

Give students the same simple matrix of data and ask them to make up a story explaining the data. Have students compare their developed narratives and discuss any similarities or discrepancies in their understandings.

### **Assignment Requirements**

Using either a real assignment or an imaginary assignment, have the students discuss the assignment requirements. Have them brainstorm in small groups about potential “unwritten” requirements, such as the time spent on various assignment activities, preparation, background research for unfamiliar concepts, etc.

### **Tour of the Library**

An alternative to the traditional library tour is a self-guided group tour. Students are placed in small groups, each of which is assigned a library section/floor/department to explore. Students make observations about organizational patterns, signage, technology, layout, desks, library staff, etc. Upon returning to the classroom, have groups give short “pop” presentations about what they discovered, with the instructor correcting and/or adding to student observations.

### **Scavenger Hunt**

Use the library’s website and/or open web search engines for activities such as citation “hopping” or “linking” in order to trace back sources.

Scavenger hunts also can be set up within the library building space using a theme or narrative: students as explorers, themes related to class subject or discipline, school history, local interests, etc. Scavenger hunts can focus on one department or area of the library, such as reference or periodicals.

## **Developing Ideas and Research Questions**

If your students are at the beginning of a research assignment and you want to give them guidance on developing a topic, refer to:

- Tutorial: Developing a Research Focus
- Video: How to Narrow Your Topic
- Tutorial: Background Research Tips
- Videos: Research Process Part 1 and 2

### **DISCUSSION TOPICS**

#### **Purpose**

What is the purpose of research? What are the traits of successful researchers? Does research differ for short term vs. long term projects?

#### **Topic Choice**

What role does topic choice have on the success of your research? (And how do you define a successful research project in your area of study?)

## **ACTIVITIES**

### **Research Project Plan**

Students begin by creating an overall plan and timeline for a research project, doing so in a similar way as they would for a paper. Students can work in teams or small groups to choose and develop their topics, thesis statements, and research focus. They should look at topic areas, subjects, aspects, etc. Have team members review topics and brainstorm ideas, ways to narrow or expand topics, and potential problems with the topics. It can help to employ a sort of peer review effort, allowing students to “see” the topic selection process from a different angle.

### **Brainstorming #1**

In groups, students can brainstorm topic keywords, synonyms, and related terms. This works well with just paper and a pen, but also with whiteboards or virtual spaces. Students may create mind maps of terms, with multiple students adding interpretations and observations.

### **Brainstorming #2**

Organize students into groups of 4 or 5. Distribute blank paper or use a mind map or brainstorming template. Assign each group a topic, or allow them to choose their own. Instruct students to write the topic in the center of the mind map. Explain that they are to write down as many related topics or subtopics as possible. Set a timer for 5 to 10 minutes and allow the students to work. When time is up, ask them to discuss their ideas with the class. Alternatively, assign multiple groups the same topic, and during the discussion compare the ideas that the groups discovered. Explain to students that what they put into the mind map can be used to help them expand or narrow their research on a topic, or organize sections of their paper. Remind students that their list of search terms may change as their research process evolves.

## **Scholarly Communication and Academic Sources**

If your students are completing an assignment using academic sources and you want them to have an understanding of scholarly communication, refer to:

- Tutorial: Scholarship as Conversation
- Video: Peer Review
- Tutorial: Why Citations Matter
- Video: What is Authority?
- Video: How to Read Scholarly Materials
- Tutorial: How to Read Scholarly Materials
- Tutorial: Annotated Bibliography

## DISCUSSION TOPIC

### Sharing Information

How do students share findings? Research papers, social media, conversations, etc.? Do they understand their place in the larger world of information and progress? Brainstorm avenues of sharing or packaging information for others. What about ethics when it comes to information sharing? How does society factor into sharing information? Societal factors may be a worthwhile perspective when considering various countries' censorship issues.

## ACTIVITIES

### How to Read Scholarly Materials

Provide students with a scholarly article printed on paper. Have them break it down into different components by literally cutting the paper into separate pieces, broken down by section. Then ask them to rearrange the pieces in the order that they need to read them based on information from the lesson.

Alternatively, have students work as partners and compare their abstract summaries. Are their summaries similar? How do they differ? This will show students that abstracts are very much open to interpretation.

### Reading Abstracts

Provide students with an article and direct them to read the abstract—nothing else. In their own words, students will predict what the article will be about using only the information that they read in the abstract. Then have them read the rest of the article to find out if their predictions were correct. This activity points out that reading the abstract will not tell students everything that they need to know.

# Sources of Information

## Choosing Sources

If your students are completing an assignment that requires a variety of different source types, and/or they need guidance on choosing appropriate sources, refer to:

- Video: Primary and Secondary Research
- Video: Primary, Secondary, and Tertiary Sources
- Video: Types of Sources
- Tutorial: Source Types
- Video: Evaluating Sources
- Tutorial: Evaluating Information

## DISCUSSION TOPIC



## **Source of Information**

Ask the students how they handle gossip. Do they question, out loud or silently, the source of the information, the biases, etc.? This is a good place to have students explore their own personal biases and how they factor into evaluation of information while offering a real-world application of IL skills and social ethics.

## **ACTIVITIES**

### **Types of Sources**

Have students compare either two primary sources about the same event (Civil War diaries or letters, for example), or a primary and a secondary source about the same event. How did the student determine if each piece was a primary or a secondary source? How do the pieces differ? What additional research questions does the student have after reading the pieces?

### **Government Information Scavenger Hunt**

Students find government websites for a health statistic, a labor statistic, the text of a new law, a map used for environmental studies, tax help, a government-funded scientific study, a description of a veteran benefit, name of a high-ranking official in the military, a database, or resources for teachers, and explain the most surprising thing they found while browsing a government website.

Explore two government websites from different levels of the same geographic area (e.g., a town and a county, a county and a province, a town and a state). Find two pieces of information that only are available at the lower level, two pieces that only are available at the higher level, and two pieces that are available at both levels.

Have students look up statistics/census data about their hometown. What information is available via government sources? Have them compare their hometown information to their current residence or school location.

Make students aware of really cool government sources by having them access and explore the USGS website (explore local earthquake information, for example) or NASA (Hubble). Have each student explore an interesting government source online and share their findings.

### **Primary and Secondary Sources**

This may be a 1-minute writing assignment on common activity among the students (e.g., what students had for breakfast, or a campus or local event about which all the students are aware) describing their experiences. Share the pieces with partners/small groups/class and discuss how answers could be considered primary sources and converted into secondary sources.

# Searching for Information

## Introduction to Searching

If your students are just becoming familiar with searching for sources, particularly when using an academic database or catalog, use the following items that focus on database choice and keyword searches:

- Videos: Searching as Exploration
- Videos: Beginning Research with Wikipedia/Google
- Video: Choosing a Database
- Tutorial: Choosing and Using Keywords
- Tutorial: Search Techniques Part 1

## DISCUSSION TOPICS

### Search Strategies

Have students discuss or brainstorm search strategies they use now. Focus on non-academic searching, like Google searches or how they search for fun. Have they seen patterns, discovered shortcuts, etc.?

Have students discuss how they find peer-reviewed or scholarly items outside of the library. What are hindrances to this process (for example, paywalls)? Why might the library resources be better to use in these cases?

### Date Published

When searching for sources, why is the date feature important? What does it do? Are there subjects or instances when students need to limit their research to recent material? Older material? Specific decade?

## ACTIVITIES

### Databases

Have students identify two or more databases or related tools. Students should write out their thesis, keywords, and synonyms. Direct students to search in a library database, catalog, or discovery tool and share observations. Compare this to search engines like Google. Have students explore similarities and differences in these tools.

Ask students to search for the same topic/subject in two databases. How did searching in each database work? Differences? Similarities? Search results? Numbers? Relevance? Was one a subject-specific database? Does that make a difference in search results? Have students present or write up a short report on their findings.

### Thesis Statements and Keywords

Create a set of imaginary thesis statements. Have students pick out keywords, develop a list of synonyms and related terms, and select a few databases appropriate for the topic. They should provide reasoning behind their selections.

Tell students to search various keywords and synonyms in a library database and in Google. What did they discover about the importance of synonyms and multiple keywords in the databases? How about spelling in databases vs. Google?

Have students work in pairs that swap thesis statements. Students should create a list of keywords and synonyms for their partners, select a few appropriate databases or other resources, and locate at least one source for their partner's project. Have the student utilize the Send/Share function in a search tool to send their partner a link or copy of the source.

## Advanced Searching/Refining Results

For students with basic familiarity with searching, use the following resources to instruct them on more advanced search techniques and refining search results:

- Tutorial: Search Techniques Part 2
- Video: Refining Search Results

### DISCUSSION TOPIC

#### **Iterative Nature of the Research Process**

As a researcher uncovers information, he/she may need to revise the topic or repeat searches with updated search terms. As the researcher outlines the argument, he/she may identify additional aspects for investigation and research.

### ACTIVITIES

#### **Search Scavenger Hunt**

Have students retrieve sites with specific domain types relevant to the project they are working on and/or their area of study. For example, have them locate a specific government website (.gov) or an academic source by using Google Advanced Search.

#### **Google Advanced Search**

Have students conduct an advanced search in Google. Take note of their results. Compare them to the kinds of results they receive in the following activity (using controlled vocabulary to search scholarly databases). How do the search experiences and results compare?

#### **Controlled Vocabulary**

Instruct students to identify two or more databases or related tools. Students should write out their thesis, keywords, and synonyms. Within the database, have students utilize features related to controlled

vocabulary to locate useful terminology. Students should make a list or chart of their keywords and the corresponding controlled vocabulary terms.

### **Real-Life Boolean Operators**

Pick a topic and have students organize themselves into groups using Boolean operators (for example, students who are freshmen AND biology majors, students who live in the dorms OR are seniors, students who like English but are NOT English majors). Once the students are broken into groups, have them pick a topic to search and work together to choose a database, search for articles on their topic, refine their results using specific parameters (for example, only articles from the last 5 years, only peer-reviewed articles, etc.). Students then should use the thesaurus to look for different ways of wording their original keyword search, and with the same limiters as before, compare the results from the two different searches.

Within a database, have students work in pairs to explore Boolean operators, search strings, limiters, etc. Have them make use of any help features available. What helps, what seems too complicated to be useful, when might they use certain features, etc.?

## **Evaluating Information**

### **Evaluating Sources (Overview)**

To provide your students with a broad overview of the principles of evaluating sources, refer to the following materials:

- Video: What is Authority?
- Video: Evaluating Sources
- Tutorial: Evaluating Information

### **DISCUSSION TOPICS**

#### **Evaluating Information**

Begin a real-world conversation about evaluation. Examples may include medical topics, large purchases, news sources, social media, mockumentaries, gossip, etc. Ask students how they would go about evaluating information they find on Twitter, Facebook, or other social media platforms. Have students ever encountered a documentary or mockumentary? How did they tell the difference? Do students question news sources? Do they look at multiple sources of information when encountering a news story that catches their interests? Investigate those sources for motives or bias before accepting their version?

#### **The Importance of Using Scholarly Sources**

Why do scholarly sources matter? When and why are they more useful than non-scholarly information?

#### **Evaluation Criteria**

Discuss what authority means. Why do credentials or academic/research associations matter? What about the author's background and/or publication history? Does the publisher matter? Why or why not? This might be a good place to take a look at predatory publishers.

### **Accuracy**

Can the information be verified via cited sources? Does it agree with other sources? If not, do students conduct more research? Has information about methodology been included? How much time do students put into determining accuracy? Are there time constraints? Are there shortcuts?

### **Currency**

Is currency important for your subject or topic? Can you determine when the information was produced or published? If the information is outdated, but otherwise applicable to your project, look for more recent work from the same author. Does the information need to be examined from a historical or cultural perspective?

### **Relevance**

Is the scope appropriate for your topic? What is the focus? What information is included and/or excluded? If it describes research, is there information about the sample used in the research? Is the sample representative of the population?

### **Objectivity**

What is the purpose of the work? Does the work offer facts, opinions, or a combination? What is the tone of the work? What assumptions does it make?

### **Audience**

Is this a scholarly publication? Trade information? General? If it is a web page, is it part of a larger site? Is there an expectation of prior knowledge or assumptions?

### **Evaluating Non-Scholarly Sources**

The same principles apply as to scholarly sources, but with less emphasis on scholarly information requirements. For non-scholarly resources, including alternative types of digital media like podcasts or video logs, make sure to understand the motivation of the information provider. Ask questions and verify information across multiple resources.

## **ACTIVITIES**

### **Evaluating a Source**

Ask students to find 2 unacceptable sources and 1 that is acceptable on a topic relevant to an academic assignment. They should write a paragraph or essay describing the evaluation process, their observations, and decision for each of the 3 sources. If time permits, have students share reasons for finding a site unacceptable for an academic assignment.

## Visual Evaluation

Pick an article with an image from a local print newspaper or from an online piece of journalism. Give the students 2 to 5 minutes to read the article and ask them to write a 1-minute essay about how the image contributes to the story. Have students share their findings with the class or in small groups.

## Evaluating Information

If you are teaching the value of evidence and the importance of critically assessing a source, refer to:

- Video: Types of Sources
- Video: Introduction to Bias
- Video: Types of Bias
- Video: Evidence-Based Reasoning
- Tutorial: Finding Diverse Points of View
- Tutorial: Fact-Checking

## DISCUSSION TOPICS

### Bias

Bias in others and personal bias both play key roles in the quality of a source. Use this discussion to get your students thinking about biases they may encounter in sources as well as their own unconscious preconceptions. Begin by asking students to define bias, using an example from their own experience. Follow up by asking how these preconceived notions affected the outcome of the situation.

Additionally, you may ask your students to describe how they keep up with current events. Is there a particular source they trust for news? What makes a source trustworthy? Use this topic to help students dig deeper into topics like objective reporting.

### Characteristics of Quality Sources

During the research process, students will need to be able to assess the quality of sources on their own. Start by asking your students to brainstorm the characteristics of a reliable, high-quality source. This can be done in pairs or as a class. Next, facilitate the synthesis of the students' responses to come up with a concise definition of a high-quality source.

This discussion can be used as an introduction to evaluation criteria related to evidence and logical arguments.

### Diverse Points of View

Sources can act as mirrors and windows in and through which students can engage with the experiences of others. Ask students to share an example of a book, poem, movie, or other media that functioned as a mirror for their identity or experience. Students should be able to explain which aspects of their source reflected their experience in the world and the value of seeing themselves represented in print/on screen.

To continue the discussion, ask students to present examples of sources that acted as windows into perspectives that are different from the students' own. Students should be able to describe how they

benefit from exposure to ideas that were unfamiliar to them. Use these discussions as an introduction to the importance of seeking out diverse sources in research and decision making.

### **Fact-Checking**

Present students with an excerpt from an article or website (such as a restaurant review or the profile of a university on a rating site that describes its size and average tuition). Ask students to identify the facts that can be verified in the excerpt. Next, ask students to explain why it's important that published facts are correct. Students should be able to describe the value of verified information in supporting evidence-based decision making and maintaining trust in the publication and its content.

## **ACTIVITIES**

### **Identifying Resources**

Help your students get started with a research assignment in this database selection exercise. Using an upcoming assignment, introduce students to their research purpose and the tools available to them through the library and online. Ask students to write down their research purpose and brainstorm the types of information they will need to begin their research. Next, students should create a list of their in-depth research needs.

Using the library's list of databases, ask students to identify at least 3 databases they will use to gather background information about their topic. Additionally, students will select at least 1 database that likely will meet their in-depth research needs. Students also should be able to describe why each resource would be most appropriate during a particular stage of their research.

### **News Sources**

Challenge assumptions about bias by asking your students to locate conscious and unconscious bias in a reputable news source. Divide students into groups and assign each a news site or organization to research. Students should use at least 2 examples from the source to explain to the class how bias affects the presentation of facts. Examples of explicit and implicit bias present in news items may include positive or negative comments made by journalists based on their personal opinions about an issue, or sports coverage consistently dominated by male reporters.

### **Identifying Bias**

In order to be successful in their academic careers, students must be able to evaluate sources for accuracy and objectivity. For this activity, provide students with 1 or 2 resources that demonstrate bias. Ask students to read the article or report once to get familiar with the topic and main argument. Next, students should reread the article or report, using these prompts to identify bias:

- What are the author's credentials?
- Does the author use personal experience or opinion as the basis for their main argument?
- Are both sides of the issue represented fairly?
- When providing supporting evidence, does the author favor certain authors and sources more than others?

### **Evidence**

Use this activity to demonstrate the importance of evidence in scholarship. Students will locate a scientific report on their topic of interest to analyze the use of evidence. After taking notes on the article, your students should be able to discuss how the author(s) used evidence to support their findings. You also may ask students to identify if and how the report uses evidence to confirm or refute opposing theories.

Next, have your students research and select an article from a non-scientific source. They should be able to identify and discuss how the author(s) of the source used evidence to support the main argument and arrive at a logical conclusion.

## Evaluating Sources (Focus on Web/News Sources)

If you are teaching students about evaluating sources and would like to focus on web/news sources, refer to:

- Tutorial: News Reporting vs. Opinion Pieces
- Video Tutorial: Understanding Misinformation
- Tutorial: Evaluating Digital Sources Using Lateral Reading
- Tutorial: Finding Diverse Points of View
- Tutorial: Fact-Checking

### DISCUSSION TOPICS

#### Objectivity in Reporting

Objective vs. persuasive journalism: Opinion and persuasive examples include accounts, columns, commentary, op-eds, and reviews. Look at word choices, tone, and design.

#### Website Evaluation

Discuss the differences among .edu, .com, .gov, .org, etc. Many students take these URL designations for granted and don't understand the importance or usefulness of them.

### ACTIVITIES

#### Lateral Reading

Provide students with a web page such as a news article and ask them to evaluate the source using lateral reading. Students should be able to describe the credibility of the author and/or publishing organization using sources discovered outside of the web page being evaluated.

#### Describing a Source

Either provide a health article citing a study(ies) from a popular news site, such as the BBC or *The New York Times*, or ask students to find one. Direct students to locate the original source of any statistics and identify:



- Who created this information (study authors)
- Where the study originally was published
- The purpose of the study
- The source of the data
- A description of the population
- A description of the sample
- A short definition of the problem
- A short definition of the variables for the statistic reported in the newspaper
- Benchmark variables
- Questions about how the data may be flawed

If time allows, ask the students to find benchmark variables and write an evaluation of the statistic.

### **Evaluating News Sources**

Have your students examine the infographic below and discuss what they see. Discussion questions might include: What do you notice about the funding sources for the new organization described in this infographic? How might revenue sources influence the content of a particular news organization? What, if anything, do you think news organizations can do to minimize bias or influence from funding sources?

Another activity to accompany the infographic would involve asking your students to locate 2 to 3 news reports from the different news organizations on the same topic and compare them, taking into account what they have learned about their funding. Ask them: What, if any, alignment does the angle of the news piece have with a particular point of view? Is the perspective what you expected, given the funding sources? Do you think this source succeeds in being objective? Why or why not?

Click the infographic to open in a new tab, or right-click to save.

(//cdn.credoreference.com/client-7446/edx/faculty-modules/following-the-trail-npr.png)

### **Diverse Points of View**

Select an article about a current event and have students read it individually. Students should be able to identify the primary point of view of the article and answer the following questions: What other perspectives are needed for us to get a balanced, big-picture understanding of the topic? How does the lack of diversity in points of view distort our understanding of the topic? How might the exclusion of diverse points of view cause real-world harm to individuals or groups that are not represented?

### **Fact-Checking**

Have students choose a topic that is of interest to them and select two news articles from different sources on the topic. Students should be able to evaluate each piece for bias and accuracy by highlighting all facts that can be verified and suggesting from which sources (or type of sources, such as "primary source: trial documentation") the most accurate information could be obtained. Students should also be able to explain which of the two sources represented the topic most accurately and why.

# Presenting and Organizing Information

## Writing and Communication

Use these resources to teach your students the importance of selecting the appropriate written format based on their communication needs:

- Video: Academic Writing
- Video: Understanding the Communication Need

### DISCUSSION TOPICS

#### The Communication Need

Use this discussion to help students analyze the purpose of communication methods. Begin by having students think about pieces of marketing they have encountered either in person or online. Ask your students to describe an effective example of marketing communication. Use these prompts to encourage analysis:

- What medium was used to communicate (email, print, video)?
- Why was this medium effective in communicating the marketing message?
  - What is the central message?
  - Who is the target audience?
- Would the message have been as clear if presented using a different medium?

Additionally, you may provide students with a message prompt. Next, ask your students to describe the communication tools they would use to articulate the message most effectively.

#### The Purpose of Academic Writing

Use this discussion to help students understand their role as academic writers. Begin by asking students to think about the assignments they have completed in their academic careers. Next, ask your students to brainstorm the characteristics and purpose of an academic paper. What differences are they aware of between the types of writing assignments they did in high school versus what they are asked to do in college? Or between different levels of college courses, or different disciplines?

Additionally, you may ask your students to think about their goals as emerging scholars (do they want to publish their work or be recognized as an expert in a given field?). Encourage students to engage with existing scholarship as a jumping off point. This discussion also may kick off a deeper analysis of concepts like publication, peer review, and the scholarly conversation.

### ACTIVITIES

#### Analyzing the Scholarly Conversation

Understanding how to contribute effectively to the scholarly conversation is a key skill students should develop throughout their academic careers. Use this activity to help students navigate the scholarly conversation on a topic of their choice. Students should select a topic that interests them and locate at

least 3 scholarly sources for analysis. To help your students begin analyzing their sources, use the following prompts:

- What are the common themes present throughout your sources?
- What are the common terms used across your sources?
- Do your sources cite specific researchers, theories, or experiments?

Additionally, you may ask students to scan each source's Discussion or Conclusion to highlight areas of future research. Students then should be able to discuss trends within the field and identify subtopics that emerged from the research.

## Synthesizing Information and Developing Arguments

If you are teaching students how to synthesize information and develop an argument, refer to:

- Videos: Research Process
- Video: Thesis Statements
- Video: Synthesis
- Tutorial: Synthesizing Information for Academic Writing

### DISCUSSION TOPIC

#### Synthesizing Information

Can you think of a time where you had to synthesize information? Was it for a class or in your personal life? If it was for a class, did you have to follow any particular format (outlines, annotated bibliographies, etc.)? Now that students are aware of what synthesizing information is, have them spend a few days observing times that they need to synthesize information. Direct them to keep a log and be prepared to share with the class.

### ACTIVITIES

#### Thesis Statements and Keywords

Create a set of imaginary thesis statements. Have students pick out keywords, develop a list of synonyms and related terms, and select a few databases appropriate for the topic. Have them provide reasoning behind their selections.

Tell students to search various keywords and synonyms in a library database and in Google. What did they discover about the importance of synonyms and multiple keywords in the databases? How about spelling in databases vs. Google? Also, have students look for alternative/suggested terms that would help narrow their topic. What effect does this have?

Have students work in pairs to swap thesis statements. Students should create a list of keywords and synonyms for their partners, select a few appropriate databases or other resources, and locate at least

one source for their partner's project. Instruct students to utilize the Send/Share function in a search tool to send their partner a link or copy of the source.

### **Drafting**

Using an outline not only helps your students apply structure to their paper, but can assist them in getting started. Instruct students to fill in the blanks of an outline template. Stress that they do not have to start with the introduction, which is where many students get stuck. Sometimes filling in the body of the paper helps a student solidify their introductory argument and conclusion.

### **Revising**

Many students struggle with conveying ideas clearly through writing—yet are adept at these skills while speaking. Instruct your students to choose a partner and explain that one partner will give a brief description of their paper out loud while the listening partner takes notes. Invite students to switch roles and read their own paper (or sections of) aloud to their partner. Alternatively, have students swap papers. Instruct them to ask these questions: Does my description match the content of my paper? Do the sections of my paper flow together, or are there abrupt shifts in ideas? Are there gaps in my paper that need to be filled?

### **Synthesizing**

Select one or more of the following activities to give your students practice synthesizing information.

- Ask students to pull out the central theme(s) of a sample passage you provide. Using the same paragraph, ask students to summarize the paragraph using their own words.
- Provide students with a few short passages and have them synthesize the information into one paragraph.
- Ask students to compile ways in which a few research articles (with different premises and/or data) could be used together in a final paper.

### **Free Writing**

Organize your students into groups of 4 to 5. Assign each group a topic, or allow them to choose one. Explain that you are going to allot a certain amount of time for them to write as much as they can about that topic—never letting their pen leave the paper. Stress that the quality of what they write is not important. The goal is quantity, to write down as many ideas that relate to their topic as possible. This will help students get accustomed to putting their thoughts onto paper. Set a timer for 5 to 10 minutes. When your students are finished, they can compare notes with their group members. Ask some follow-up questions: Did all members think of the same ideas? What was different about the responses, and why did group-mates arrive at different conclusions or questions?

## **Oral Communication and Presentation Skills**

To teach students the essential skills of collaboration and information sharing, refer to:

- Tutorial: Presentation Skills
- Video: Using Your Voice (within Oral Communication tutorial)

## **Activities**

### **Presentation Analysis**

Use this activity to help students prepare for a variety of presentation scenarios. Each student will choose a topic and two real-world settings in which they would like to present. For example, a student could choose to present a review on the effects of caffeine on memory. The student then would adapt their presentation scope and depth for two real-world audiences, such as doctors and college students preparing for exams.

Once your students have researched their topic, they should be able to highlight the key topics to present to their target audiences. They also should be able complete the following:

- Structure the presentation in order to best communicate their findings.
- Analyze the most appropriate methods to communicate with their target audiences.
- Determine how the scope and depth of their presentation will be affected by their target audience's needs or familiarity with the topic.
- Select images, charts, or other media to support their findings.

In addition, encourage students to think about how their tone, choice of words, and body language may differ between the two presentations.

### **Oral Communication**

Students should present a short audio clip from a recorded speech or podcast episode to the class and explain how the speaker uses the physical elements of speech effectively. Students should be able to identify aspects of speech such as timbre and pace and explain how the speaker uses each to support their message.

## **Information Ethics**

### **Academic Integrity, Plagiarism, and Intellectual Property**

If you want your students to be aware of academic integrity, plagiarism, and respecting intellectual property as they complete an assignment where they will need to take these concerns into consideration, use the following resources:

- Video: Academic Integrity
- Video: Plagiarism
- Video: Copyright
- Video: What is Authority?

## **Plagiarism**

Begin your discussion by asking lead-in questions to gauge students' knowledge of plagiarism and its consequences. What do you think plagiarism is?

Can turning in previous work from another class be considered plagiarism? When is it OK to use other people's work without citing it? Is there a specific amount of work that can be used without recognition?

Take a minute to think about some examples or instances that could be considered plagiarism (e.g. copying work or paraphrasing ideas without giving credit, including switching around the order of words and arguments to make the writing "differ" from the original work; taking individual credit for work done by a group; and using material quoted in one of the sources you found and citing it as if you read the entire work).

## **Academic Integrity**

What is the university's policy on academic integrity? Take a moment to think about 5 fundamental values: honesty, trust, fairness, respect, and responsibility. How do they fit into your academic career? What is academic dishonesty and what are potential consequences if one is caught violating a policy?

## **Academic Dishonesty**

What are some strategies that you find helpful to avoid committing plagiarism, even unintentionally? If you ever are in doubt about whether you should cite a source or not, what is the best course of action to take? Do you know of any helpful resources to consult if this happens?

## **ACTIVITY**

### **Academic Dishonesty Detectives**

Provide students with an excerpt of a mock assignment and have them analyze it for examples of academic dishonesty. They might try Googling phrases or using an anti-plagiarism software to identify plagiarized content, sources not cited properly, or data that may have been fabricated. What clues would they look for?

## **Digital Citizenship**

To teach students about their responsibilities as digital citizens, refer to:

- Tutorial: Introduction to Digital Citizenship
- Tutorial: Digital Citizenship in Practice

## **DISCUSSION TOPICS**

### **What is Digital Citizenship?**

In small groups, ask students to come up with a definition of digital citizenship to share with the class. Students should also be able to describe how they practice digital citizenships in their daily lives in the

classroom and beyond. In addition, ask students to identify challenges they encounter in their daily lives that make it difficult to have positive interactions in their digital communities.

## **ACTIVITIES**

### **Personal Code of Ethics for Digital Spaces**

Students will share their personal code of ethics activity with a partner and discuss how they plan to implement the improvements they have identified for themselves. As a class, the students will come up with a general code of digital ethics for the class to follow. After the class code has been finalized, print a copy to post in the classroom and/or share in the online course.

## **Citations**

If you want to introduce your students to the concept of citations in general and the reasons for their importance as tools for crediting creators, acknowledging the value of information, and participating in a scholarly conversation, see the following:

- Tutorial: Why Citations Matter

## **DISCUSSION TOPICS**

### **Citations**

Before discussing the nature of citations and references, ask the students to come up with definitions of these terms. What are their current views? Experiences? Assumptions?

Citations as puzzle pieces or clues in a mystery: If we view citations as part of the academic conversation, what part do they play?

How do citations and references help solve problems? How do they help when we're curious about a topic? How do citations help us prevent plagiarism? Is it as simple as using in-text citations and reference lists, or is it more complex?

Why should we acknowledge others' work? Why is it important to forwarding research and various academic fields?

Citing statistics: Why must statistics always have citations? Discuss the nature and creation of statistics. Citing statistics adds credibility and helps you avoid accusations of making statistics up.

Citing images: Why should images always have citations? Discuss the nature and creation of images. How can they be manipulated or used out of context? How do citations help clarify the original intent or message of an image?

Citation generators and organization tools: Some professors don't allow use of these tools; why do you think that is? Why might some professors consider these tools cheating? How does this relate to technological literacy? What tools do students already use? What would they like to learn about or see in the future? Brainstorm the "perfect" citation tool. Discuss human and machine error when it comes to citations: the importance of double-checking!

## Principles of Citations: APA

If you would like to familiarize your students with the principles of citation and APA Citation style, refer to:

- Tutorial: Why Citations Matter
- Tutorial: APA 7th Edition
- Video: APA 7th Edition

### DISCUSSION TOPIC

#### Citations

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### ACTIVITY

#### Breaking Citations Down

Develop a list of citations broken down by component (author, date, publisher, title, etc.). Type or write them on larger pieces of construction paper, cardboard, etc. utilizing a variety of colors, shapes, and sizes. Have students work in groups to assemble the parts on pinboards, a wall with tape, magnetic



boards, etc. This easily can be turned into a competition. It also leads to discussions about how and why students chose to assemble citations in a certain way and discussions about their reasoning for their mistakes.

## Principles of Citation: MLA

If you would like to familiarize your students with the principles of citation and MLA Citation Style, refer to:

- Tutorial: Why Citations Matter
- Video: MLA 9th Edition Citation Style
- Tutorial: MLA 9th Edition Citation Style

### DISCUSSION TOPIC

#### Citations

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## Principles of Citations: Other (Turabian, Harvard, Chicago)

If you would like to familiarize your students with the principles of citation and are using Harvard, Turabian, or Chicago style, select from the following resources:

- Tutorial: Why Citations Matter
- Video: Turabian Citation Style 9th Edition
- Video: Harvard Citation Style
- Video: Chicago Style 17th ed. Books and ebooks
- Video: Chicago Style 17th ed. Journals
- Video: Chicago Style 17th ed. Websites and Social Media

### DISCUSSION TOPIC

#### Citations

Before discussing the nature of citations and references, ask the students to come up with definitions of these terms. What are their current views? Experiences? Assumptions?

Citations as puzzle pieces or clues in a mystery: If we view citations as part of the academic conversation, what part do they play?

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## Visual and Quantitative Literacy

### Visual Literacy

If your students are learning how to locate and interpret visual information, refer to:

- Video: Why Does Visual Literacy Matter?
- Video: Interpreting Images
- Video: Searching for Images
- Intro to Maps and Geographic Literacy

## DISCUSSION TOPICS

### Understanding Visual Information

Interpreting visual information is a critical skill students will use beyond their academic careers. Use this discussion to encourage students to ask questions and consider context when interpreting visuals. You will need 3 or 4 images for this discussion.

Begin by asking students to analyze an image of your choosing. Students should be able to answer the following questions:

- What or who is the main subject?
- What is happening in the image?
- What type of image is it?
- What is the image's purpose or intended meaning?
- What emotions does the image evoke?

Next, have the students form small groups to analyze the remaining images for a comparison of their findings with the class. Additional questions for students to consider include:

- How does the image's composition affect its message?
- What else do you need to know to fully understand the image?

### Visuals Brainstorming

Use this discussion to help students get accustomed to identifying the need for supporting visual materials in a variety of academic and professional settings. You may want to focus on image use they'll encounter in assignments for your course, as part of their major, or along possible career paths. Begin by selecting a scenario such as:

- *Your office is publishing a consumer report on a new piece of fitness technology.*
- *You are in charge of designing a brochure to advertise initiatives planned by the student government.*
- *You are a lab assistant responsible for designing the final report on the growth of mushrooms in different climates.*

Ask students to brainstorm the types of images that would be appropriate in the given situation. To help students understand the importance of aesthetics, ask them to create mock drafts of a print or digital report in which they set placeholders for header images, in-text graphics, and other visual elements.

### **Maps in Daily Life**

Have students consider when and how they use maps in their lives. Do they think that maps are important in personal, professional, or academic settings? Ask them to provide examples of their own map use. You could conduct this discussion using a chalk talk or creating a concept map with different bubbles for topics including map types, purpose of map use, etc. You may also want students to submit their questions about maps, which they can explore together after using the tutorial.

Or, you may want to all look at a map or a couple of maps together - i.e., a digital map like Google or Apple Maps, and an analog map, such as a political map of the United States, and have students identify and point out different features of the map that they notice or have questions about (i.e., the legend, color coding, how features are labeled, etc.). Discuss the following questions:

- What features do you see on this map?
- Why do you think these features are included and depicted the way they are?
- Is there anything missing from this map's design that you think would be useful to include? If so, why do you think it's missing?

### **ACTIVITY**

#### **Image Search**

To be an effective communicator using visual information, students first need to develop the skills necessary for locating images. Use this activity to help students locate images for an upcoming assignment and get familiar with image databases or subject-specific collections accessible through your library.

Begin by introducing the purpose of the assignment and the role images will play in it. Once your students are familiar with the assignment, ask them to brainstorm keywords associated with their topic. Using a general image collection like Google, the Library of Congress, or AP Images, students should experiment by entering their search terms and analyzing the results. Encourage students to update their keyword list to broaden or narrow their search as needed. If available, students then can advance to subject-specific image collections to locate the most relevant images for their assignment. Remind students to view images in their original context to fully understand the intended meaning.

## Map Tracking

Have students track all of the maps they see used in news articles either for a set period of time (i.e. a week or a day, whatever works better for the class duration); or for a minimum number of articles/examples (i.e. five) to see how maps are used as explanatory or argument-making tools in an article or op-ed/editorial. Have students note the following:

- The map types they see used (i.e. map types - reference or thematic)
- How maps are used as sources in the article - what information do they provide? How does it reinforce or add to the information in the text?
- What point(s) are the maps being used to make? Do they enhance or detract from a central idea or argument? How are the features of the map/design of the map used to make an argument (for example, a thematic map using color coding or two maps showing change in an area over time)?

## Understanding Data

If students are learning about working with data, refer to:

- Video: Using Quantitative Data
- Video: Evaluating Statistics

## DISCUSSION TOPIC

### Evaluating Quantitative Data

Use this discussion to introduce students to the process of evaluating data. Begin by asking students why it is important to use accurate sources of data. Next, have students discuss the factors that make a source credible. This discussion can introduce the evaluation criteria used to assess quantitative data: currency, relevance, authority, objectivity, and accuracy. Your students should be able to discuss the meaning of each and provide an example of sources for each criterion.

## ACTIVITY

### Evaluating Quantitative Data

Use this activity to help students practice evaluating sources of quantitative data. You will need several examples of visualization in a variety of formats. For each visualization, ask students to describe the data using the following prompts:

- What is the topic of this visualization?
- What is the larger context of the visualization?
- What factors are being compared?
- In what situation would you use this visualization?
- How was the source created? Who is the author?
- Is this a credible source? Why or why not?
- What additional information would you need to evaluate the source?

Students should be able to evaluate each visualization according to the criteria: currency, accuracy, authority, relevance, and objectivity.

### **Using Quantitative Data in Research**

This activity will help students incorporate quantitative data in their research and evaluate the available sources for currency, accuracy, authority, relevance, and objectivity. Begin with a scenario based on a publicly accessible data source (international organizations such as the World Bank are a good place to start). Ask students to review a data set and come up with a unique question to answer using their data interpretation skills. Either individually or in pairs, students will analyze the data to answer their research question. Students should be able to:

- Identify a unique research question based on the data set.
- Analyze the data set(s) for accuracy against any accompanying text.
- Seek out other data sets or text to supplement their research or complement their findings.
- Discuss the credibility of all of their data sources (specifically the source's currency, accuracy, authority, relevance, and objectivity).
- Present their findings using evidence derived from the data set(s).

## **Using Critical Thinking and Logic**

### **Thinking Critically**

If your students are learning about making connections between complex and contradicting pieces of information to draw logical conclusions, refer to:

- Video: Why Thinking Matters
- Tutorial: Analyzing Information
- Tutorial: Synthesizing Information for Academic Writing

### **DISCUSSION TOPICS**

#### **Why Thinking Matters**

Being aware of the critical thinking process will help students develop strong decision making skills. To help them tune in to their critical thinking mindset, first ask students to describe a time in their professional or academic life in which they made a decision without thinking critically. What was the problem that needed solving? What did they do? What would they have done differently had they stopped to think about their course of action?

In the following week, students will keep a log of instances in which critical thinking helped them solve a complex problem. Ask your students to discuss their experience and findings in small groups or as a class.

#### **Analysis**

Help students understand that they use analytical skills on a regular basis by asking them to describe a time they encountered contradicting perspectives on a particular issue. Students should be able to discuss the issue at hand (maybe contrasting academic sources, inconsistencies in misleading news reports, or two articles citing different results from a case study), how they examined the conflicting points of view, and how they arrived at a logical conclusion.

## **ACTIVITIES**

### **Critical Thinking**

Divide students into small groups and assign each a scenario. Ask students to write a concise problem statement to articulate the issue at hand. Next, students will write down their answers to these follow-up questions:

- What do you already know about the issue?
- What was your emotional response to the situation?
- What additional information will you need to fully consider the situation?
- What questions would you ask to further analyze the situation?

Using real world scenarios will help students see the value of critical thinking when making decisions in their personal, academic, or professional life. Scenarios could include:

- You decide to write a complaint to the city planning department after witnessing the removal of trees in your neighborhood.
- You want to quit your job and take a gap year before beginning a graduate program, but you need to save money to pay for tuition.
- During your last year of college, a family friend offers to sell you their house located a short distance from campus. You have already made several professional contacts in the area, but are open to relocating for the right job.

### **Analyzing Information**

This activity will help students practice two essential research skills: organizing their work and analyzing the relationship between sources. Select a topic that your students are unfamiliar with, and ask them to locate 5 or 6 sources about the topic in a variety of formats (ebooks, journal article, podcast, blog post, etc.). For each source, they should find the title, author, source, publication date, format, and keywords. Students should type the information into a single document and print it out. Distribute copies to pairs of students and ask them to cut out each source. Prompt students to arrange their sources chronologically or thematically. Next, students will order the sources according to importance and justify their ranking.

For a more challenging activity, ask students to arrange the sources in order of relevance to a research question.

## **Introduction to Logical Reasoning**

If you are teaching how to reason, refer to:

- Video: Inquiry
- Tutorial: Logical Reasoning
- Video: Evidence-Based Reasoning

## DISCUSSION TOPIC

### Logical Reasoning

Logical reasoning is central to effective problem solving and decision making. Use this discussion to help students identify instances of logical and illogical reasoning they may encounter in their daily lives. Begin by asking students to brainstorm examples of logical arguments. Next, ask students to identify arguments that are based on illogical reasoning. Use the following prompts to encourage analysis:

- Why are logical arguments more credible than those based on illogical reasoning?
- What factors comprise a person's ability to reason logically?
- How do you use logic to make everyday decisions?

## ACTIVITIES

### Practicing Inquiry

To encourage your students to develop an inquiry-based mindset, begin with a scenario such as: *You are considering buying a new car. While a car that runs on gas is more affordable, an electric car would help reduce emissions. Use an inquiry-based approach to decide which type of car you should purchase.* You may want to present them with a scenario that relates specifically to the discipline of the course you're teaching or to your students' prospective career choices.

Instruct students to create a list of questions they would ask in order to gain a deeper understanding of the issue at hand. Students should be able to revise questions to develop an exploratory outlook and observe connections. Additionally, students should be able to identify at least 3 sources that would help them make the most informed decision.

### Identifying Logical Reasoning

For this activity, you will need access to a recorded interview, discussion, or debate. Play the recording for your students to familiarize them with the topic and the speakers. Next, ask your students to watch or listen to the recording again to identify how the speakers use logic to advance their arguments. Students should be able to describe how the speakers use (or misuse) logic to form rebuttals and conclusions.

### Practicing Evidence-Based Reasoning

Use this activity to help students practice incorporating evidence into their academic writing. This activity is most effective if paired with an upcoming research assignment. Each student should begin by analyzing their research question. Ask students to brainstorm follow-up questions to guide their process of gathering evidence. Follow-up questions should be related to the core question and facilitate deeper analysis.

Once your students have completed their research, ask them to create an annotated outline. The outline should include headers and topic sentences, each with a supporting citation. While crafting the outline,



encourage your students to tie in specific pieces of evidence like statistics, direct quotes, or research findings.

## Logical Reasoning and Analysis

If you are teaching students how to practice logical reasoning and analyze information, refer to:

- Tutorial: Logical Reasoning
- Tutorial: Analyzing Information

### DISCUSSION TOPIC

#### Logical Reasoning in Everyday Life

How do you use logical reasoning in your everyday life? What types of evidence do you use in your daily life to solve problems or make decisions?

What are the consequences of failing to apply logic to the process of solving a problem or making an important decision? Describe an example in which you or another individual made a decision or argument that was not based on sound logic or evidence.

### ACTIVITIES

#### Reasoning Log

Students will keep a log of their reasoning processes for the week. They will then select two events to describe in detail. For each logical reasoning event, students should be able to identify the reasoning process used (inductive or deductive) as well as their sources of evidence used to understand the issue at hand, make a decision, or solve the problem.

#### Analytical Question Writing

Students will practice approaching a research topic with an analytical mindset. Start by providing students with a research topic such as the Great Depression. Next, ask students to brainstorm simple background research questions related to the topic. For example, “what happened to the American economy during the Great Depression?”. Students will then critically consider the same aspect of the research topic by brainstorming an analytical question such as “how did the economic downturn of the Great Depression influence banking reforms?”

#### Source Analysis

Provide students with an article on a topic that is relevant to students’ interest or current events. Ask students to analyze the author’s use of evidence and to evaluate the article for bias or unsound reasoning. Students can complete this activity in small groups or individually.

#### Evidence Validation

Provide students with an article on a controversial topic (see ProCon.org for topic suggestions). In small groups, students will validate the evidence cited within the article for authority and accuracy. Students should be able to locate at least two additional credible sources reporting on the issue. Each group should be able to explain if and how the original article's argument can be validated by other credible sources.

## Culture and Citizenship

### Civic Engagement and Civic Action

To teach students about their civic capacity, refer to:

- Video: Civic Engagement
- Video: Civic Action & Communication

#### DISCUSSION TOPICS

##### **Civic Engagement**

Part of being a responsible, informed citizen is engaging with the goals and challenges of the community. Use this discussion to help students reflect on ways they have been (or could be) involved with civic issues in their community. Begin by asking students the following questions:

- What does it mean to be civically engaged?
- What are the important civic issues in your community?
- How are you involved in your community?
- How do local and national civic issues impact you? What can you do to get involved?

##### **Civic Action**

To help students understand the difference between civic engagement and civic action, begin by asking them to come up with a definition for each. Students should be able to provide at least two real-world examples of each.

Once the class has a firm understanding of civic engagement and civic action, they may discuss their experiences. Students should be able to describe their civic experience, how it impacted their community, and speak to the benefits of being civically minded.

#### ACTIVITY

##### **Civic Engagement**

This activity will help students identify civic initiatives in their local community. Ask students first to evaluate a challenge faced by their community and identify the organizations involved. Students then should be able to outline a detailed plan on how to get involved. This outline may include a review of existing initiatives, the history of the issue, the people involved, and potential opportunities.

For a long term activity, students may complete their plan to become actively involved with a local cause. This may look like volunteering for a local organization after class or on weekends. Over the course of the class, students should keep a log of their experiences, goals, and frustrations to share with their peers.

### **Civic Action**

In this activity, students will select a local or national issue for which to design a civic action plan. Begin by asking students to complete the following:

- Identify the top sources you will use to inform others to support your cause.
- Outline a communication plan including the target audience, scope, purpose, and delivery method.
- Identify key partners and leaders to contact.
- Detail necessary steps that will help maintain the future successes of the plan.

Students should be able to articulate their civic action plan in writing or as a verbal presentation to the class. To practice business communication skills, encourage students to treat the activity like a project proposal. Students even may choose to create a mock report for a local organization.

## **Culture and Citizenship**

To help students reflect on their cultural identity and roles as global citizens, refer to:

- Video: Introduction to Cultural Issues
- Video: Global Citizenship

### **DISCUSSION TOPICS**

#### **Cultural Identity**

Understanding their own cultural identity is the first step for students to develop empathy for others from different backgrounds. Use this discussion to encourage students to consider how their identity is affected by culture and world events. Begin by asking students the following questions:

- What cultural groups do you belong to?
- What are some of your culture's most important beliefs or values?
- Are there any ways in which your cultural identity has created challenges for you?
- How do you interact with cultures different from your own?

#### **Generalizations and Stereotypes**

This discussion will help students determine the differences between generalizations and stereotypes along with the impact of each on cultural interactions. Begin by asking students to define a generalization. Then ask them to describe how generalizations can have positive and negative effects on their daily lives.

Next students should be able to create a definition of a stereotype. You can start as a class by brainstorming keywords or associated emotions on the whiteboard. Students should then recount how they have seen or experienced stereotypes play out in cultural interactions.

Follow up with the Cultural Identity activity.

### **Global Citizenship**

Use this discussion to help students think critically about their roles as global citizens. Begin by asking students to assess global influences on their daily lives. Jumping off points may include:

- Are there products you use in your daily life that were imported from a different country? Do you know how the product was made?
- Think about a global event and describe how it impacted your daily life. What did you do (or could have done) to improve the situation for yourself or the global community?

## **ACTIVITIES**

### **Cultural Identity**

Use this activity as a follow-up to the Cultural Identity discussion to help students become aware of the impact generalizations and stereotypes can have on the lives of individuals.

To prepare, locate a contemporary primary source of how a specific stereotype interferes with an individual's daily life (this may be a video interview, short film, transcript, audio clip, etc.). Students should be able to articulate how generalizations or stereotypes impact the interactions they have observed using the definitions from the Generalization and Stereotypes discussion.

### **Global Citizenship**

This activity will encourage students to become aware of the impact global events may have on their lives. Begin by asking students to reflect on a global issue they are interested in or passionate about. Students should be able to report on the history of the issue, the people involved, and its implications on both the local and global scale. Additionally, students should include a detailed description of how they would become an active global citizen.

This activity may be completed as a written or verbal presentation exercise.

### **Global Connections**

Use this activity to expand upon the Global Citizenship discussion.

Students will begin by selecting an object found in their home (a type of technology, an article of clothing, a piece of furniture, etc.). Ask students to do some research into the brand, materials used, and country of export. Next, students should be able to research and write a short report on the industry that created the product.

A laptop, for example, would lead into a larger discussion of how different components were sourced from various countries. In this case, a successful global citizen also would analyze factory working conditions and the economic impact the technology industry has on developing countries.