Students do not need to go to school to find information. Streams of information flow to them from countless sources. What they do need as part of their learning is strategies to discern whether or not the information they scoop out of the current is credible, accurate, valid and useful.

Each text that students access has an author, authors or organization behind it that, in obvious and not so obvious ways, asks them to do or believe something – either consider a perspective, agree with an opinion, accept the authors as experts, take on a belief or attitude, or act in a way that supports the authors’ views and beliefs.

When students evaluate sources of information for research and for other purposes, they become “agents of texts and not victims of texts” (Vasquez, Harste & Albers, 2010). Students need to be able to interrogate texts in order to unpack implicit information which gives clues into the creation and intent of a text, and to be able to judge the quality of information they use in order to support, form, and expand their own thinking.

As adolescents move through the grades, they encounter a widening range of texts from a variety of sources that contain within them a greater diversity of perspectives. They are expected to be able to draw ideas from multiple sources, to work increasingly with more self-selected rather than teacher-selected texts, and to do so with greater independence (Student Achievement Division, 2009; Carnegie, 2010). “The explosion of information available electronically means students need to be able to judge the credibility of an ever-widening array of sources” (Brookhart, 2010). In many content areas, students are expected to use these texts for research.

To compile information for research, students need not only attend to the sources of texts, but given the variety of perspectives and intents behind those texts, must acknowledge and resolve discrepancies among sources (Britt & Aglinskas, 2002; Baker, 2010).
There are a number of literacy skills involved in evaluating sources. The task requires students to read while posing critical questions about the author and the content, to infer and draw conclusions based on what is evident from the analysis, and to determine what information will be used to communicate their own ideas. Uncovering the quality of information they will use for research engages adolescents in a bit of detective work; they need to sort through clues from texts so they can make informed decisions about the information they use. These skills are not only important for research they do in school, but for the research for personal and social goals.

IN THE CLASSROOM

GETTING STARTED

- Explore the purposes of research, and how the skills of researching serve a variety of purposes, including academic and personal goals.
- Explicitly teach vocabulary related to evaluating sources of information for research such as accuracy, authority, credibility, reliability, academic rigor, conflict of interest.
- Model how to evaluate a source of information (e.g., by doing a think-aloud using a website).
- Incorporate thought-provoking texts, including online texts, that connect to learning goals, and that allow students to collaboratively do some ‘detective work’ to evaluate the text.
- Distinguish additional considerations students may need when evaluating web-based texts that may be different than with print texts (e.g., determining authorship).
- Co-develop a classroom resource (e.g., anchor chart, bookmark) based on modeled and/or guided instruction which provides prompts for students to analyse texts.
- Help students develop a method to compile information about their sources and to track the analysis of the credibility of the sources.

TRY IT OUT: DETERMINING TRUSTWORTHINESS OF SOURCES

Prior to students gathering information for research, have them reflect on their own positions and beliefs related to a variety of types of information sources.

- Invite students to reflect on and determine to what degree they trust a variety of information sources (See example in the chart below) for a question under study.
- Once students have made their determination, ask students in a think-pair-share to

<table>
<thead>
<tr>
<th>How much do you trust or distrust the following as a source of information about global warming?</th>
<th>Strongly trust</th>
<th>Somewhat trust</th>
<th>Somewhat distrust</th>
<th>Strongly distrust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science programs on television</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientists/researchers studying in the field</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental organizations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mainstream news media</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
discuss the following questions: What would make you trust this source? What would make you distrust the source?

- Debrief as a whole class by recording (e.g., on chart paper) the various criteria students use to base their trust of a source of information. Use the students’ responses to assess readiness of students and need for additional support for evaluating sources of information.

- Use these criteria to develop more specific criteria and questions students may use to evaluate sources of information for their subsequent research.

## USING CRITERIA TO EVALUATE SOURCES OF INFORMATION

It’s not enough for students to be skeptical of sources. They need ways of evaluating the sources they use. The chart below provides criteria and questions students can use to investigate the credibility of their sources.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Explanation</th>
<th>Questions to Pose</th>
</tr>
</thead>
</table>
| **Authority** | Authority considers **WHO** (or what) created the source and the reputation and background of authors or organizations who produce the information, and the degree to which the authors or organizations are accepted experts in the field. | • Is the author sponsored by an interest group?  
• What are the author’s credentials or organizational affiliations?  
• What are the author’s qualifications to write on the topic?  
• What do others say about the author or organization (e.g., using a search about the author or organization)?  
• Does it appear the author is citing other credible sources, or fairly questioning the information of other sources? |
| **Currency** | Currency is **WHEN** the source was created. Usually it is important to consider the most recent findings on a topic or issue; however, there may be a need to access sources from a particular time period. | • When was the information published or posted?  
• Is your topic one that requires current information?  
• Is the publication date recent enough to be useful to your topic or discipline?  
• Has the information been revised or updated? |
| **Integrity** | Integrity relates to **WHY** the source was created and **HOW** evident these reasons or intentions are apparent to users of the information. | • What is the purpose of the information?  
• Does the author make intentions or purpose clear?  
• Is the information fact? opinion? propaganda?  
• Are there vague or sweeping generalizations that aren’t backed up with evidence?  
• Are arguments very one-sided with no acknowledgement of other viewpoints?  
• Are there political, ideological, cultural, religious, institutional, or personal biases? |
| **Relevance** | Relevance is **HOW** practical or applicable the information is to the research. | • Does the information relate to your topic or answer your question?  
• Is the information presented at an appropriate level?  
• Would you be comfortable using this source for a research paper? |
| **Validity** | Validity is **WHERE** the author gets the information and **HOW** accurate the information is and **HOW** well it is supported. | • Where does the information come from?  
• Is the information supported by evidence that is credible?  
• Has the information been reviewed or refereed (i.e., other experts have looked at the information and have supported it)?  
• Can you verify any of the information in another source?  
• Does the language or tone seem biased and free of emotion?  
• Are there spelling, grammar, or other typographical errors which may suggest something about the quality of the content? |

adapted from Purdue OWL; SPARK at York University
Students will benefit from practicing using these criteria and questions on a variety of sources, including textbooks, websites, news articles, and scholarly articles. As they practice, help students how to find clues and infer information related to the criteria that is not explicit in the text itself.

**USING COLLABORATIVE ANNOTATION OF SOURCES**

Annotating a text is a way to carefully attend to a variety of aspects, and to note findings or questions that arise from the information. One way to support students in evaluating their sources is to provide opportunities for students to annotate collaboratively.

- Select a text or texts students will use related to the learning goals of the research or lesson.
- Determine the criteria and question prompts, such as the ones listed on page 3, and review with the students.
- Form groups and assign criteria and related questions to each group. In groups, students read the text with the specific purpose of evaluating the source for their criteria (e.g., finding answers to the questions). Students can annotate the text, for example, by commenting directly on the text, using sticky notes, or using the comment feature in Google Docs.
- After discussing their annotations, each group provides an overall rating for their criteria, for example, using a scale of highly credible to not very credible.
- Each group reports their findings by sharing their rating and the reasons for giving the rating for the criteria.
- As a whole class, determine the overall credibility and validity of the source(s).

**IN BRIEF**

Explicitly teaching students how to evaluate sources of information for research helps them think critically about sources they use in a world where information can be accessed instantaneously.

**REFERENCES**


Ontario Ministry of Education. (2010). *Social Studies, Grades 1 to 6, History and Geography, Grades 7 and 8*. Toronto: Author.


