How to Help All Students with Evidence-based Reading and Writing During an Inquiry Activity

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In this article, I describe an instructional process to help students be successful when they read online sources in order to investigate and answer inquiry questions. The focus question used here, *How can social harmony be best achieved in online spaces in Singapore?*, frames a learning activity designed for the Singapore Upper Secondary Social Studies curriculum. There are four online sources for this activity. The sources represent different perspectives and solutions to achieve social harmony in online spaces in Singapore. The instructional process for this activity has six key components:

1. Establish a clear inquiry purpose;
2. Introduce learning activity;
3. Activate prior knowledge;
4. Select engaging sources;
5. Design learning scaffolds;

Being successful with this instructional process entails source work and effective use of literacy strategies. I define source work as evaluating claims and extracting evidence from sources to answer an inquiry question. I define literacy strategies here as approaches to help students comprehend information in sources.

Reading Comprehension: Struggles, Habits, and Scaffolds

Students struggle with information sources for a range of reasons, including limited knowledge about a topic; limited knowledge about the reading and writing process; differences in background and cultural knowledge; lack of motivation; increasing challenges and demands of the curriculum as students get older; instruction not being aligned with students' abilities and needs; speech and language development; and language differences (Conley, 2008).

But we do know a great deal about what successful readers do with information sources. These readers: know how to use existing knowledge to help understand new information; ask questions about texts before, during, and after reading; make inferences; determine what is important in a text; monitor their own comprehension and employ "fix-it" strategies when they are having difficulty understanding something; and synthesize to create new learning (Pearson, et. al, 1992). Zwiers (2010) calls these ways of thinking "reading comprehension habits" and these indicate how successful readers engage in this thinking automatically, even unconsciously. Zwiers outlines six key habits:

1) Organizing text information by sculpting the main idea and summarizing
2) Connecting to background knowledge
3) Making inferences and predictions
4) Generating and answering questions
5) Understanding and remembering word meanings
6) Monitoring one's own comprehension
A key goal, then, is to help students cultivate these habits to effectively engage in source work.

Scaffolding is guidance or assistance teachers provide students to help them achieve learning goals. Scaffolds to promote careful and critical reading and the above comprehension habits include: procedural checklists with steps, explicit rules, or procedures for students to follow; process-structured questions that move students through the steps of applying a skill; graphic organizers, such as diagrams, charts, or mind maps that visually present steps or procedures to follow; and modeling, such as demonstrating step-by-step procedures or routines, differentiating and making explicit each step, displaying lists of the steps that students can use, and explaining reasons for using each step (Beyer, 2008).

In this article, I focus on scaffolding the source-based skill, evaluating claims and evidence, and three core reading comprehension habits: (1) connecting to background knowledge; (2) generating and answering questions; and (3) monitoring one’s own comprehension. With the inquiry question in mind, I describe what each of the above six components of the instructional process might look like.

**Establish a Clear Inquiry Purpose**

Framing a learning activity as a question signals the importance of inquiry as a curricular goal; students need to answer this question to document their learning. When this curricular objective is married to an inquiry-based instructional approach, students have opportunities, as Walter Parker (2012) describes, to “do inquiry, to use the mind well… to read, write, and think critically about something” (p. 1). In this scenario, students are investigators, working with different sources to develop evidence-based and well-reasoned answers to the question.

Framing a learning activity as a question also helps establish a clear link between the reading students are asked to do and a culminating writing task – what they will produce to represent their learning. The question, *What online spaces do adolescents in Singapore spend time in?*, informs students the answer to this question will be descriptive; they will need to list these different spaces and describe some of their key features or characteristics. However, if the question is, *How can social harmony be best achieved in online spaces?*, which is our focus here, the expectation is that students will explain and argue what actions need to be taken and who might be responsible for taking these actions. A mere description of online spaces would be insufficient. An evidence-based argument is what is called for.

A clear inquiry purpose also needs to focus on an authentic problem rather than serve primarily as an academic exercise. This helps safeguard that source-based skills (making inferences, evaluating reliability, evaluating claims and evidence) are not treated in isolation or as ends in themselves. Instead, these skills are used to best answer the inquiry question.

**Introduce Learning Activity**

The primary goal when launching an activity is to “hook” students, to draw them into the curriculum content by providing opportunities for them to make direct, visceral connections between the topic and their lives. This is not difficult to do with the question *How can social harmony be best achieved in online spaces?* We live in a highly interconnected world. This is especially the case with our youth who dedicate significant amounts of time to social networking sites like Facebook and Twitter. These and other online spaces are also common spaces where people from different backgrounds interact. While many of these interactions are positive and supportive, sometimes people act irresponsibly and post information that can be insensitive, offensive, or hurtful. This can threaten social harmony among different racial and religious groups, which leads to questions about what might need to be done to monitor or regulate what happens in online spaces. Because many students live in these spaces, they will have first-hand experience and knowledge to access and use in this learning activity.
The introduction, along with establishing a clear inquiry purpose, is entwined with the next component in this instructional process: activate prior knowledge.

**Activate Prior Knowledge**

Adequate background or contextual knowledge is essential to doing source work, especially when the learning goal is to evaluate, examine, and extract evidence to answer a question. So, what background knowledge do students need to have to be successful in this activity? This activity focuses on two core concepts -- social harmony and online spaces -- and students will come to these concepts with some familiarity. The idea of social harmony (and the importance of preserving social and religious harmony) is foundational to government policy and included in school curriculum in Singapore. Many youth in Singapore also participate in online spaces, connecting with friends and others through social networking websites like Facebook and Twitter. As a result, the experiences of students serve as an essential starting point for this inquiry.

Our job as teachers, then, is to provide students with an opportunity to cultivate the reading comprehension habit, connecting to relevant prior knowledge. Here it is helpful to ask specific questions like: What do you already know about social harmony in online spaces? And, what do you want to know? Do you know of any examples where people posted insensitive, offensive, or hurtful information in an online space? Do you have any examples of what you think were a successful response to these kinds of posts? Asking these kinds of questions will prepare students to more deeply engage with the sources in the activity. These questions also reinforce to students that the question How can social harmony be best achieved in online spaces? is an authentic problem, one that requires them to access their existing knowledge to answer well.

When students share and discuss their answers to questions about their background knowledge, we can identify what they know about participation norms in online spaces (who can participate, when, how this happens, etc.), about how in Singapore there have been consequences for people making what were deemed inappropriate or offensive posts, and about what connections students can make to the ways their textbooks have covered how common spaces can bond people together rather than separate them. Thus, this is also an opportunity to address any misconceptions students might have to prepare them to do their source work.

**Select Engaging Sources**

In terms of the criteria for selecting sources for this learning activity, How can social harmony be best achieved in online spaces? I chose sources that vary in type or genre (text and video), purpose (to inform or persuade) and difficulty level (based on the content or complexity of argument). This variation is crucial because students will bring diverse needs, interests, and abilities to this learning activity. I also wanted to make sure the sources represented different perspectives on the issue, so students would need to wrestle with competing claims as they worked to make their own claims and extract evidence from the sources to support their ideas.

Source 1 – Give self-regulation a chance to work online. Source type: Opinion-Editorial.

Dr William Wan, General Secretary of the Singapore Kindness Movement, is the author of this article, which was published in The Straits Times on 30 December 2011. In this 364 word article the General Secretary argues that allowing online users to monitor and regulate themselves is better policy than instituting a top-down program where the Singapore authorities regulate online behavior. To support his argument, he notes the difficulty of monitoring Internet use (a challenge which will only escalate in the future) and the effectiveness of “netizens” to define acceptable online behavior.

Source 2 - Singapore Arrests Two for “Racist” Comments Online. Source type: News report.

Tan Dawn Wei, a journalist for Asia News Network, is the author of this article, which
was published in the Jakarta Post on 2 July 2012. This 242 word source is a report that the Singapore police arrested two 17 year olds for posting what were deemed to be racist comments on Facebook and Twitter. The Sedition Act is cited to legitimate the arrests and Deputy Assistant Commissioner of Police How Kwang Hwee is quoted, saying that the right to free speech does not include inflammatory remarks about race or religion and that “members of the public should bear in mind that they are no less accountable for their actions online.” The actual comments of the two youth are not included in the article.


This ChannelNewsAsia.com video clip (1 minute 18 second) from 19 September 2012 is in English with English subtitles. This news report focuses on the Singapore Government’s request of Google to block a controversial amateur anti-Islam video from being played in Singapore. The Home Affairs Ministry is cited as stating that the video, which it believes incites religious intolerance and hatred, is in breach of Singapore laws. The report notes that twelve people had been killed within a two-week period due to reactions to the video. Also cited are the successful efforts of the governments of Indonesia, Malaysia, and India to get Google to block the video in those countries.


The author of this 190 word source is Cherian George, Associate Professor at the Wee Kim Wee School of Communication and Information, Nanyang Technological University. It is excerpted from a longer blog post related to journalism in Singapore. The central point of this source is that censorship doesn’t build trust among citizens, which in his words, “is ultimately the best defence in a world where we will never be able to control 100% of the messages 100% of the time.”

Scaffolds can help students be successful when working with these four sources. To explore what this scaffolding might look like, let’s consider the core skill of evaluating claims and evidence and two comprehension habits: (1) generate and answer questions; and (2) monitor one’s own comprehension.

There are several ways to help students identify and evaluate the claims and evidence of a source. We can start with a few prompts, including several to guide students to ask questions while they read:

1. Identify key information: Ask yourself, What are the details that describe who or what the source is about? Are there details that describe when, where, how, and why something happened? Here it is also useful for students to ask themselves about the type and purpose of each source. Sources 1 and 4 are Opinion-Editorials with a purpose to persuade while sources 2 and 3 are news reports with a primary purpose to inform.

2. Identify claims: Remind students that a claim states a position on something (“The economy is doing well” or “The best way to improve the environment is to recycle”) and that often the main idea of a source is a claim. We can also remind students that titles and headings can also indicate key claims (e.g., ‘Give self-regulation a chance to work online’ is the title and main claim of Source 1).

3. Examine evidence: Here we want students to ask themselves, “Is the claim supported with evidence or not? What kind or type of evidence is used to support the claim?” An additional scaffold to use here is a list of different kinds of evidence with definitions and examples of each: such as:

   Statistics: the use of numbers or quantitative information to support a claim or argument. Example: "4 out of 5 dentists recommend Crest toothpaste."

   Anecdotes: evidence that is based on a person’s observations or experiences. Example: When someone says something like, "This song makes you feel good about yourself."
Testimony: when someone testifies to the truth or veracity of a statement or claim. This can include expert testimony or eyewitness testimony. Example: A doctor who declares that a restaurant has healthy food options. A teacher who states that a recent concert was the best performance of her students.

Analogy: to compare and find similarities between two different things. Example: Comparing American football and war. Both include offense and defense, generals are like coaches, military battles are like fourth downs" with each possession in football, etc.

This type of specific scaffold about evidence can help students realize no statistical evidence is used with Sources 1 and 4. Instead, other evidence is used. For example, evidence by analogy with Source 1 ("Like the promotion of kindness and graciousness, public ownership, as opposed to a top-down approach, is more effective in bringing about long-term change.").

Scaffold Reading Comprehension Habits

To do the work of evaluating claims and evidence, many students can benefit from scaffolds that help them monitor their own comprehension. One way to do this is to ask students to keep a record of their thinking when working with a source, to use, for example, a three-column chart where students identify the specific places in a source where they are confused, consider reasons why they might be confused, and identify what they will do to get unstuck (see Teaching Resource, “Monitoring Comprehension Scaffold”). It is important for students to identify where they get stuck, so they can better learn strategies to get unstuck, such as, reread, ask yourself a question and answer it, visualize, notice patterns in the source, or make a connection to own life, knowledge of the world, or another source (Tovani, 2000). Similar to this “Monitoring Comprehension Scaffold” is to ask students to document their thinking in the margins of a source with Post-it notes.

Another scaffold that can be used to cultivate the habit, generating and answering questions, as well as the habit, monitoring one’s own comprehension, is a graphic organizer where students document the questions they have before, during, and after reading the source (see Teaching Resource, “Before-During-After Questions Scaffold”). They can also ask themselves: What answers to my questions can I locate in this source (or with the aid of another source in this activity)?

Guide Synthesis and Writing

After students work with all the sources, the goal is for them to synthesize what they have learned – and, specifically, to extract evidence from these sources to answer the inquiry question: How can social harmony be best achieved in online spaces? To make this task as engaging and authentic as possible, the culminating writing assignment can be framed this way:

Assume you have been asked to post your response to this question in a special online forum: "Based on the evidence I have examined so far, social cohesion in online spaces can be best achieved by...."

As teachers, we can provide additional scaffolding during this culminating phase of the instructional process. We can ask students to identify the main claim they want to make; we can even provide a few examples of claims, such as:

- social harmony in online spaces can be achieved through self-regulation;
- the government needs to play a role in regulating offensive online interactions;
- online community groups are in the best position to regulate online behavior;
- the responsibility for monitoring and policing online behavior needs to be shared across individuals, groups, and the government.
Then we can do our best to make sure students use evidence from the sources to support their own claims. Because any conclusions drawn with an inquiry like this are necessarily tentative and limited, a final step in this process could be to ask students to identify what new or refined questions they have at this point and what sources they would like to locate to continue exploring this inquiry topic.

Conclusion

The instructional process described in this article has six key components: (1) establish a clear inquiry purpose; (2) introduce learning activity; (3) activate prior knowledge; (4) select engaging sources; (5) design learning scaffolds; (6) guide synthesis and writing. My primary goal here has been to highlight how this process might be used for a specific learning activity where the goal is to evaluate claims and evidence to answer an inquiry question. Keeping in mind the need to scaffold key reading comprehension habits, such as connecting to background knowledge, generating and answering questions, and monitoring one’s own comprehension is an essential part of helping ensure that students can be successful in this process.

References


## Appendices

### Appendix 1: Before-During-After Questions Scaffold

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## Appendix 2: Monitoring Comprehension – Scaffold

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