

ALERT

ADOLESCENT LITERACY: ENGAGING RESEARCH AND TEACHING

Make room for STUDENTS TO POSE AND PURSUE QUESTIONS

DID YOU KNOW?

There is a great deal of research and many resources related to teacher questioning. However, there is much less focus on students posing and pursuing their own questions. Research indicates, on average, students encounter 300-400 questions per day with a ratio of teacher-questions to student-questions of 10:1 (Tienken, Goldberg & DiRocco, 2009). However, a key quality of self-directed, reflective learners is their ability to pose their own questions which help direct their learning (Chin, 2002).

If teachers pose most of the questions, then they are likely doing most of the thinking. When students have the time, space and support to pose and pursue their own questions, they are problem solving, assessing their own starting places for building their understanding, and determining how they might go about answering the questions. In addition, students feel valued and are more engaged when they ask their own questions and set out to answer them (Zwiers & Crawford, 2011).

“Making meaning starts not with answers but with questions. Teachers who wish their students to be skilled at formulating their own meaning and their own understanding realize that lessons should not frequently commence with statements stressing answers but with questions.” Hunkins quoted in Walsh & Sattes, 2011

WHY IS IT IMPORTANT FOR ADOLESCENT LEARNERS?

Adolescents have a tendency to question: they question the rules they have at home, the expectations at school, and their interactions with friends. Their tendency to question coincides with what is happening in their growing brains. At this stage in their cognitive development, they are developing the capacity to think more about their beliefs about knowledge and facts, and they are “developing a rational approach to knowledge” (Stepping Stones, 2012). That is, they are thinking more critically about how it is they come to know something about a topic or issue rather than simply accepting it. They begin to understand that many of the things they considered facts are not independent of others’ perspectives.

Questioning is also important because adolescents today are surrounded by so many sources of information. Developing effective questioning skills not only helps students access the information, it also helps them be critical consumers of the information when they pose questions to determine credibility, reliability and validity of sources.

Adolescents question because it is a way for them to assert themselves, to make sense of their world, and to find answers to issues that bother or interest them. Sometimes it seems their questions lead them to point out inconsistencies in the world around them which allows them to counter with their own thinking, experiences and ideas. In other words, questioning allows them to test out beliefs they previously held (and sometimes ideas they had as children) and potentially revise their thinking on a topic or issue.

IN THE CLASSROOM

GETTING STARTED

- Create a culture of collaboration and inquiry in the classroom.
- Create a safe, inclusive environment that promotes risk-taking since all student questions are valuable.
- Make time for student questions (e.g., whole group, small group, partners, using wait time or think time).
- Develop parameters and opportunities for posing questions. Such structures should be equitable and allow students to be collaborative with their questions (and their answers) rather than competitive or distracting. Encourage students to appreciate ‘tentativeness’ in their thinking which allows them ample time to consider, revisit and think about their questions.
- Explicitly teach, model and practice different types of questions (e.g., factual, recall, higher-order, open-ended).
- Give students prompts (e.g., How might...? How is this similar to...? I wonder why/how/if... Why do you think that is?) to support their asking of questions for various purposes.
- Pay attention to the types of questions students ask as they are indicators of the kinds and ranges of thinking they may be engaged in.

“When students pose their own questions and are involved in inquiry that taps into their sense of wonder and curiosity, they are more engaged in learning.” - Adolescent Literacy Guide, 2012

TRY IT OUT: CURIOUS QUESTIONERS

This strategy ‘sparks’ students’ interest to ask questions based on concrete objects and it motivates further inquiry.

- Select materials or artefacts connected to the learning goals that will provoke questioning and discussion (e.g., electrical circuitry, paintings, photos, maps, tools/ machinery, musical recordings, drama props).
- Organize students into pairs or small groups.
- Encourage students to touch, move and explore the given objects.
- Invite students to record any observations.
- Have students use their observations to generate and record "I wonder..." questions.
- Provide opportunities for students to explore answers to their questions (e.g., through research, experiment, debate, discussion).

adapted from “Sparks that Ignite Inquiry”, Science and Children, December 2010.

“Asking questions is the number one most important step to understanding something fully...and no student should hesitate to ask.” - Devon P., Grade 11 student quoted in Adolescent Literacy Guide, 2012

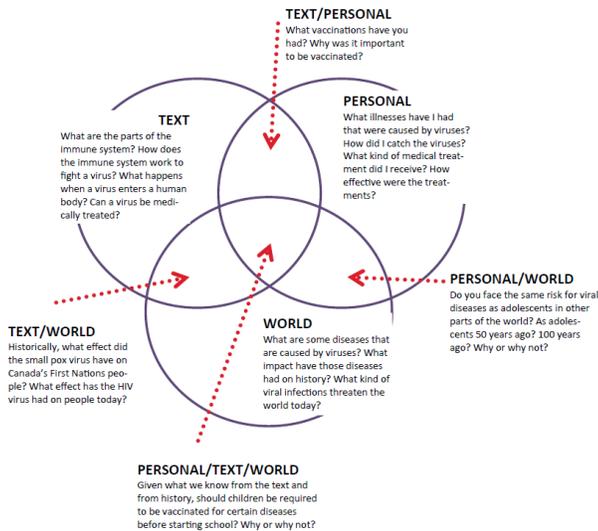
PROVIDING STUDENTS WITH A FRAMEWORK FOR QUESTIONING

In order for students to generate and use their own questions, they may need a framework which helps them create different kinds of questions. Such a framework (1) elicits a range of responses, and (2) engages students in various kinds of thinking. There are a number of frameworks available to help explicitly teach, and to guide students to generate, the different kinds of questions and their purposes. Different kinds of questions can be generated, for example, using the categories from Bloom’s taxonomy, Costa’s Three Levels of Questions (i.e., factual, interpretive, evaluative), and Raphael’s QAR

which identifies four kinds of questions related to texts (i.e., right there (in the text), think and search, author and me, on my own).

Another such framework is called questioning circle. This technique, created by Kelly and Christenbury, is included in Jeffery Wilhelm's book *Engaging Readers and Writers with Inquiry* (2007). The questioning circle is best conceptualized as three overlapping circles which represent three distinct areas of knowledge: the text (or subject itself), the personal (or reader), and the world (or other texts/resources related to the primary text).

QUESTIONING CIRCLE



TEXT/PERSONAL

What vaccinations have you had? Why was it important to be vaccinated?

PERSONAL

What illnesses have I had that were caused by viruses? How did I catch the viruses? What kind of medical treatment did I receive? How effective were the treatments?

PERSONAL/WORLD

Do you face the same risk for viral diseases as adolescents in other parts of the world? As adolescents 50 years ago? 100 years ago? Why or why not?

WORLD

What are some diseases that are caused by viruses? What impact have those diseases had on history? What kind of viral infections threaten the world today?

PERSONAL/TEXT/WORLD

Given what we know from the text and from history, should children be required to be vaccinated for certain diseases before starting school? Why or why not?

TEXT/WORLD

Historically, what effect did the small pox virus have on Canada's First Nations people? What effect has the HIV virus had on people today?

TEXT

What are the parts of the immune system? How does the immune system work to fight a virus? What happens when a virus enters a human body? Can a virus be medically treated?

Adapted from Wilhelm, J. (2007). *Engaging Readers and Writers with Inquiry*. Scholastic:

Questioning circle encourages students to create in each of the areas, as well as the areas which overlap (i.e., Text/Personal, Text/World, Personal/World), and finally a 'dense' question which involves all the areas (represented by the section where all three circles overlap). Once students have generated their questions based on the questioning circle, plan for students to share and use the questions.

The *Adolescent Literacy Guide* outlines components which support students abilities to think, express and reflect. Questioning is one of the components to which this ALERT connects.



FRAMEWORKS FOR QUESTIONING

- Aschner-Gallagher Classification
- Bloom's Taxonomy
- Costa's Three Levels of Questions
- Kelly & Christenbury's Questioning Circle
- Mosenthal Periodic Table of Learning
- Raphael's Question-Answer-Relationship (QAR)
- Rothstein & Santana's Question Formulation Technique (QFT)

EXIT CARD QUESTION TREE

Value student questions and guide instruction with a creative spin on exit cards.

- Prepare a drawing of a tree without leaves on chart paper or white board to display in the classroom.
- Invite students to generate questions (e.g., clarification, metacognition) on sticky notes at the end of a period of learning.
- Have students place sticky notes as leaves on the branches of the tree.
- Read questions and sort into question categories (e.g., clarification, metacognition, review) and reorganize on the tree.
- Use the questions to inform next steps for student learning, such as highlighting or incorporating them in subsequent lessons, form small groups based on similar questions, engage in conversations with the student about their questions, prompt students to develop specific any significant questions that may be lacking.
- Consider how technology might be utilized, for example, use an interactive white board for students to post questions, develop an online version of the question tree (e.g., using Prezi).

IN BRIEF

Teaching students to be skilled questioners helps support them as independent self-directed learners. Teachers can tap into adolescents' tendency to question by allowing them to pursue topics and ideas that interest them, and by making explicit the various purposes and ways to pose meaningful questions.

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FOR MORE ON...

Adolescent Literacy

Literacy GAINS. (2012). [Adolescent Literacy Guide: A Professional Learning Resource for Literacy, Grades 7-12](#).

Questioning

AER GAINS. [Questioning: 'Assessment for Learning Video Series'](#)

Literacy GAINS. (2012). [Research and Practice Connections: Encouraging Thinking Through Questions](#).

Promoting Purposeful Talk

Literacy GAINS. (Fall 2012)

[ALERT: Make Room for Talking to Learn](#).