

PRACTICE AND RESEARCH

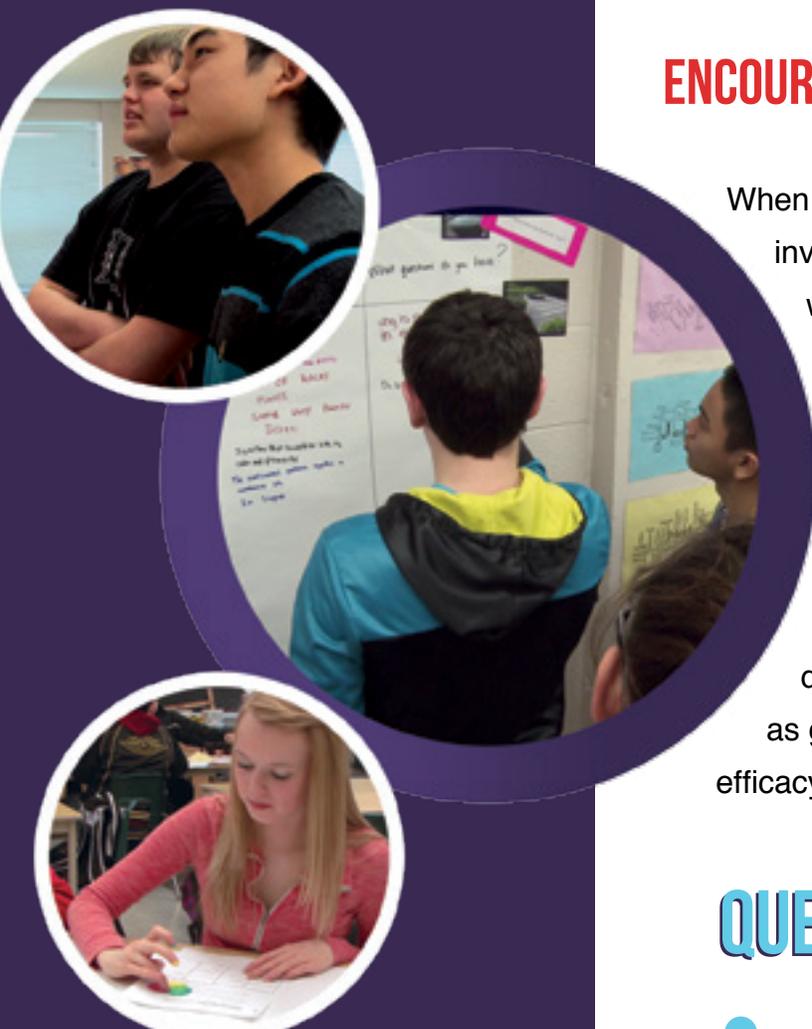
CONNECTIONS: ADOLESCENT LITERACY

ENCOURAGING THINKING THROUGH QUESTIONS

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. The more learners have opportunities to pose different kinds of questions for a variety of purposes, including exploration and reflection, the more flexible they become in a variety of learning situations. When adolescents are posing questions, it has the potential to help them develop a range of thinking processes as well as greater sense of control and a higher sense of efficacy (Walsh & Sattes, 2011).

QUESTIONING MEANS...

- exploring, wondering and investigating
- asking questions to clarify, probe, extend thinking, and challenge ideas
- collaborating with peers to pose questions and seek answers
- using different types of questions to meet learning goals
- self-questioning as a means of self-assessing
- understanding how questioning shapes thinking and learning
- seeking divergent perspectives



“When teachers use these strategies to ask probing questions, students grow in their thinking processes. At the same time, teachers should share the reasons for their questions.”

Fisher & Frey, 2008

WHY TEACH IT?

When students pose their own questions, they are more likely to find relevance and meaning, have their interests honoured, connect prior knowledge and experiences, and use their skills of reflection. In fact, students' sense of academic self-efficacy increases when they think about and frame their own questions (Walsh & Sattes, 2011). This is important for adolescent learners who are developing a sense of autonomy and independence. The use of questioning has the potential to connect with their developmental needs in addition to deepening their learning. "When students know how to ask their own questions, they take greater ownership of their learning, deepen comprehension, and make new connections and discoveries on their own" (Rothstein & Santana, 2011).

Adolescents have a tendency to question, and they are often motivated by their questions. They sometimes need guidance to pose different kinds of questions for a range of purposes, for example, to explore ideas, solve problems, create and monitor their thinking.

Questions evoke and expose thinking. When students share their questions in the classroom, they hear the perspectives and ways of thinking of others (McComas & Abraham, retrieved March 2012). In addition, when students are posing and pursuing questions collaboratively, they build a number of connections, including

with their peers. "[Q]uality questioning activates and sustains interactions and relationships between students and teachers, between students and content, and between teachers and the content in ways that increase both student engagement and achievement" (Walsh & Sattes, 2011).

The *School Effectiveness Framework* stresses the importance of authentic, relevant and meaningful student inquiry (Ministry of Education, 2010), and questioning plays a large role in inquiry. Some of the evidence outlined in the framework includes opportunities for students to identify authentic problems and pose significant questions for investigation across all curriculum areas, and to demonstrate curiosity and a positive and productive disposition to learning (Ministry of Education, 2010).

Watch how the students in the class, co-taught by Marlee Falcon and Bill Bazinet, build understanding about different kinds of question prompts.

The video is available at www.edugains.ca.



HOW TO TEACH IT

As expert learners, teachers play important roles as effective questioners for a variety of purposes and as facilitators allowing opportunities for students to pose their own questions. “Through their questions, teachers model how students can come up with their own questions. When students learn to identify questions, to inquire, to problematize, they learn to think about their world differently and in depth” (Wood & Blanton, 2009). This is particularly the case when students are actively encouraged to investigate questions with the teacher for which they do not have a perceived answer (Wood & Blanton, 2009).

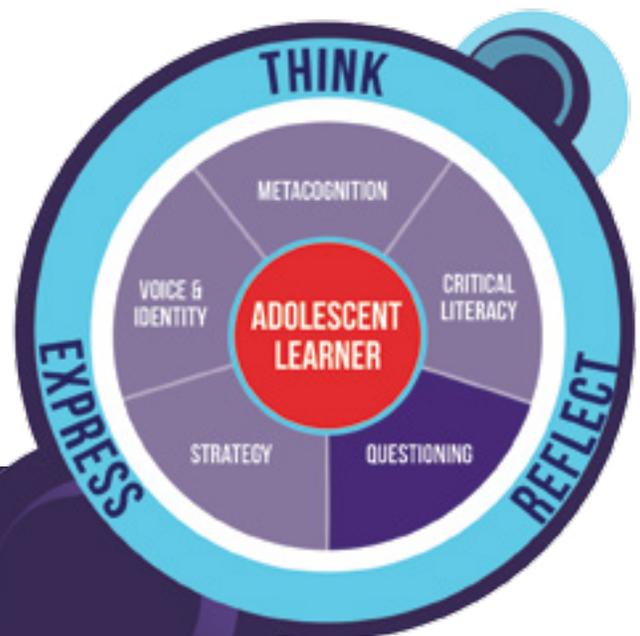
In order to do this, it is important that learners understand various qualities of questions. Costa and Kallick note that “Some students may be unaware of the functions, classes, syntax or intentions of questions. They may not realize that questions vary in complexity, structure and purpose. They may pose simple questions intending to derive maximal results” (Costa & Kallick, 2000). Students who have limited understanding of the qualities of questions may approach questioning with a narrow range of strategies.

Teachers can sharpen students’ questioning by explicitly teaching students the various qualities of question which evoke different kinds of thinking:

- closed- and open-ended questions, and the kinds of information each type elicits
- explicit and implicit types of questions
- convergent and divergent types of questioning, and when using each of those types of questions are beneficial

- cognitive skills or processes required, for example, Bloom’s Taxonomy is one framework to distinguish the types of processing that may be required for various questions and prompts
- the connection between a student’s background knowledge related to a question, and where the student might go or do to find an answer (see *One Approach to Questions* at www.edugains.ca).

Teachers also set the conditions for effective questioning in the classroom. An inclusive, positive, and stimulating classroom environment conducive to inquiry allows students to take risks in raising their own questions. Setting norms for positive classroom interactions where questions are valued and helping students develop effective collaborative skills empowers all students to pose questions of personal importance and interest.



“Questioning is fundamental to effective teaching and learning. It is a critical skill that teachers must learn to do well and that students need to be taught.”

*AER GAINS, Questioning: ‘Assessment for Learning’
Video Series Viewing Guide, 2010*

STUDENT QUESTIONING IN THE CLASSROOM

The Question Formulation Technique, developed by the Right Question Institute, provides a way for students to create their own questions, refine them, and use them strategically. One of the goals of the technique is to shift the responsibility of teachers generating the questions to the students generating the questions individually and collaboratively.

- Step 1:** Create a Question Focus that acts as a prompt and provides a focus for the student inquiry and thinking.
- Step 2:** Students Produce Questions guided by four rules: generate as many questions as possible, do not stop to answer or evaluate any of the questions, record the questions exactly as stated, rephrase any statement or comment into a question.
- Step 3:** Students Refine Questions by categorizing the brainstormed list as closed- or open-ended questions, identifying the advantages and disadvantages of each type of question, rephrase one or more of each of the questions into the other type, reflect on how the rephrasing can affect the depth, quality, and value of the information it will elicit.
- Step 4:** Students Prioritize the Questions by choosing the three most important questions based on criteria or guidelines (e.g., established as a class), and provide a rationale for their selections.
- Step 5:** Students and Teacher Decide on Next Steps by exploring how they will use the questions, and how they may go about answering the questions.
- Step 6:** Students Reflect on What they've Learned about the process of generating questions, about their thinking, and/or about the topic they are pursuing (e.g., What did they learn about generating your own questions? What did you learn about the topic, so far? What did you learn about collaborating with others? What challenges might you encounter, and how might you manage those challenges?).

Source: Rothstein & Santana, "Teaching Students to Ask Their Own Questions", *Harvard Education Letter*, 27 (5), September/October 2011.

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“Effective problem solvers know how to ask questions to fill in the gaps between what they know and what they don't know. Effective questioners are inclined to ask a range of questions.”

Costa & Kallick, 2000

