



# \* The Role of Questioning in Inquiry

## Let's Question Questioning

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**Peter Skillen**

*Manager, Professional Learning  
YMCA of Greater Toronto  
[peterskillen.org](http://peterskillen.org)  
[@peterskillen](https://twitter.com/peterskillen)*

**Brenda Sherry**

*Tech Coach, Upper Grand DSB  
[bsherry.com](http://bsherry.com)  
[@brendasherry](https://twitter.com/brendasherry)*

# \* Questions About Questioning

- \* Who asks the questions?
- \* What are excellent questioning strategies for teachers?
- \* How might teachers' questions impact student thinking?
- \* How will we help students to create their own questions?
- \* How might this accommodate each & every student's voice?
- \* What kinds of questions are there?
- \* What kinds of questions support a variety of thinking levels?
- \* What is the role of technology?
- \* How should/would students approach web-based research?
- \* What questions do you have? :-)

# \*Teachers - Framing Questions (1)

Consider these three scenarios:

1. Some students call out answers after you have asked a question
2. You ask questions and some students just sit there and never respond
3. A group is discussing an idea and one or two people in the group are doing all the work





# \*Teachers - Framing Questions (2)

- \* Focus Statement - How are the green & purple questions framed in relation to student participation?
- \* Contrast purples vs greens.

# \*COMPARE...

(think about each question wrt student participation)

"Share with your partner please. What are endorphins? What is the connection between endorphins and laughter?"

"Who can tell me whether the tree, or the boy, is the better friend, and why?"

"No hands please, I'll pick several of you to respond. What are two explanations as to why boomerangs return? (After a 10-second wait time the teacher asks Marcos.)"

"Who in this group can explain how to factor an equation?"

"Thumbs up if you agree, and down if you disagree, and be prepared to defend your answer. Free trade will have a long-term benefit to Canada, the United States and Mexico."

# \*COMPARE...

"Terri, yesterday we talked about the use of 'wait time' in asking questions. Please tell the others in your group the three benefits of wait time and whether or not you agree with those benefits."

"Take 5 seconds to think of the difference between an instructional skill and an instructional strategy. Be prepared to share your answer with your group."

"Could someone please tell me what they predict will happen to the communistic form of government in Eastern Europe given the current conflict around independence?"

"Think to yourself and then I'll ask you to share. Explain the formula for calculating the speed of a falling object."

"What could you predict would happen if we flew a paper airplane in the the space shuttle, remembering that the shuttle has air pressure, but no gravity?"

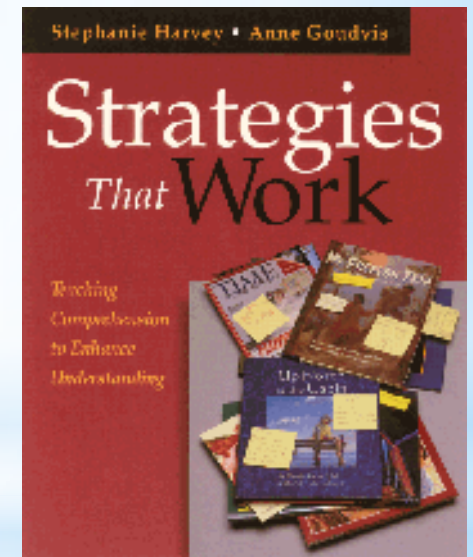
# \*Testers

Do these represent questions that are framed to engage student participation?

- \* "Who can tell me why poetry is considered a higher form of linguistic intelligence than prose?"
- \* "With your partner, think of the steps involved in balancing the equation and identify what step is the most difficult. Write those steps down and hand them to me as your 'ticket out the door'."
- \* "You have selected a novel of interest to read and critique. Please be prepared to present your critique to the members of your group next Monday."

# \* Strategies that Work

- \* Use adult text to show the questions we have when we read
- \* List and categorize questions to promote understanding
- \* Keep a Wonder book
- \* Thick and Thin questions
- \* Use Question Webs
- \* Sincere Questions vs. Assessment Questions
- \* Run a back channel - lino, sticky notes, google docs, todaysmeet





# \* **Project-Based Learning**

## **- An Inquiry Approach**

The first task for each student may be to work toward a 'driving question' for the investigation.

**A driving question is one that is:**

- \* integral to the curriculum under study
- \* worthwhile
- \* complex enough to be broken down into smaller questions
- \* link concepts/principles across disciplines
- \* feasible
- \* contextualized
- \* anchored in the lives of learners
- \* meaningful
- \* ill-structured
- \* engage students in a state of 'flow'

# \* Kids' Web Research

## *Asking Questions*

- \* A difficult step for students
  - \* Usually asked closed, single answer questions
- \* 'Question Drift'
- \* Students require time to 'explore' their topic
  - \* must have a solid question before researching in earnest
- \* Teachers must help students form good questions
- \* The inquiry process must be a part of the culture of the classroom

# \* **Develop Driving Questions Publicly**

***Use Online spaces to support your Project Based Learning***

- \* Each student needs to work towards the 'driving question' for the investigation.
  - \* This may take several journal pages and much discussion with peers to develop a question that meets the criteria.
- \* Each student needs to develop plans for investigation.
  - \* 'thinking aloud' in journal and by reading and reacting to the comments of peers.
  - \* student and peers have regular, reflective conversations about every stage of their work.
- \* teachers using wonder boards
- \* documentation boards
- \* using a digital tool so that you can see the development of thinking (wikis, google sites, blogs, diigo)

***Coming to Your Driving Question***



All About CSILE and Knowledge Forum

<http://www.youtube.com/watch?v=4okhQxhmlt4>



## Question Creation Chart (Q-Chart)

	Is	Did	Can	Would	Will	Might
Who						
What						
Where						
When						
How						
Why						

Directions: Create questions by using one word from the left hand column and one word from the top row. The farther down and to the right you go, the more complex and high-level the questions.

## The "Q" Chart

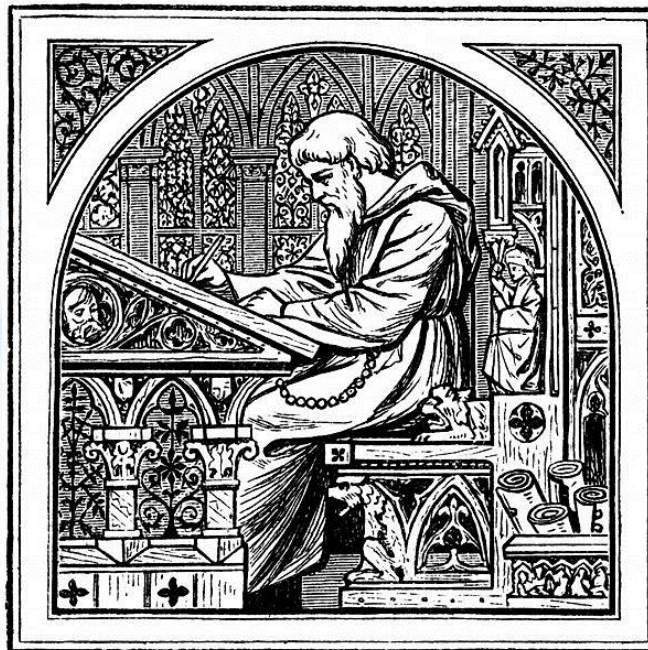
The Q-chart below gives a framework for creating questions – Start your question with a word from the first column and add a verb from the top row. The combination you choose will drive your question.

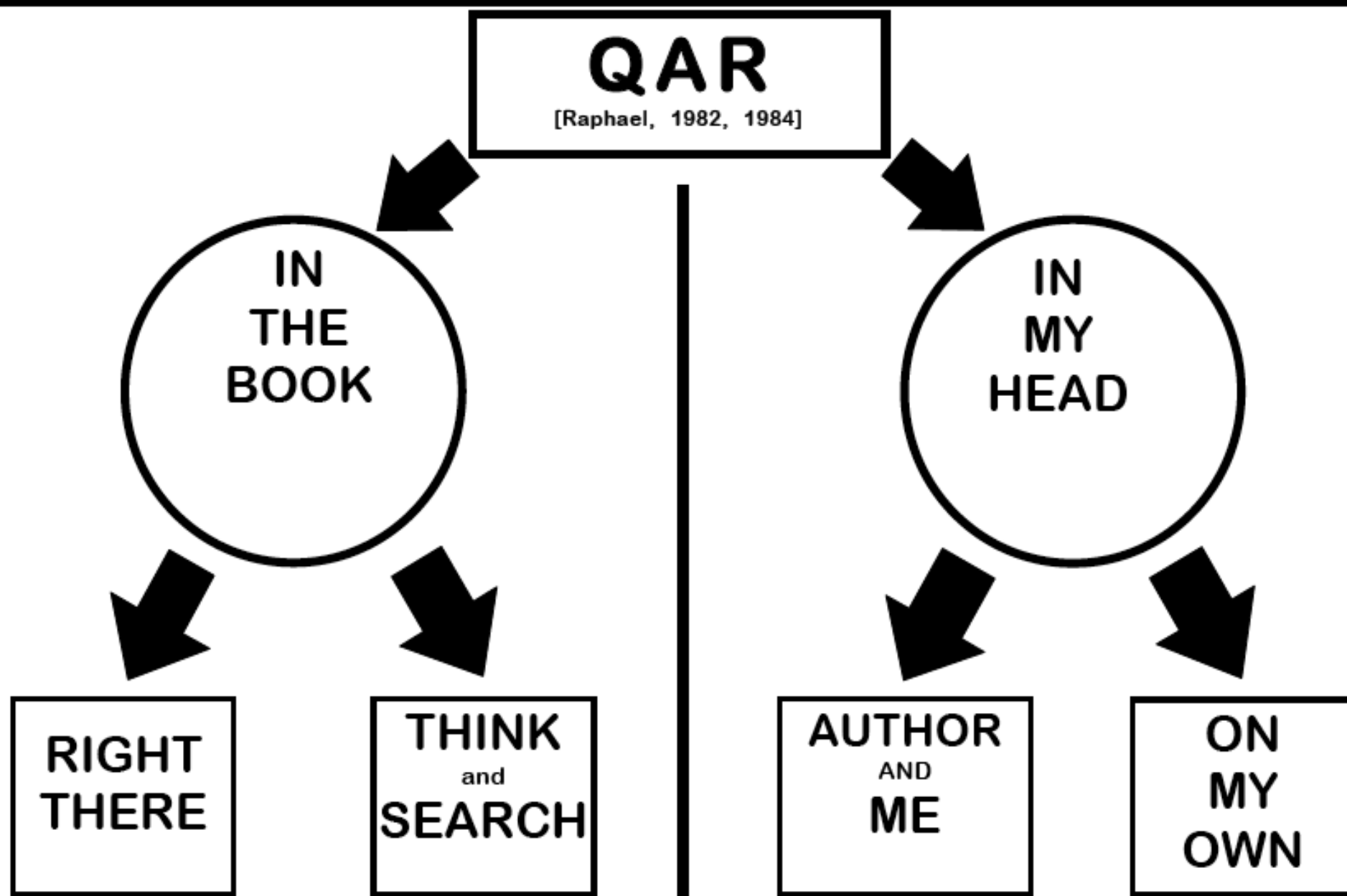
Discussion questions should lie within the "Predict" and the "Synthesis and Application" boxes. For example, "When would...?" or "Why might...?" are good beginnings for discussion questions. Avoid starting discussion questions with starters such as "What did...?" or "How can...?"

	Is	Did	Can	Would	Will	Might
What	<b>Factual</b>			<b>Predict</b>		
Where						
When						
Who						
Why	<b>Analytical</b>			<b>Synthesis and Application</b>		
How						

Source: Jan. McCallin. Reading, Understand It, Communicate It. Ontario: JEMCON Publishing, 2000.

# \* Getting Started & Getting Better







# \* Question & Answer Relationship

## ***Right There***

These are basic recall questions. The answer is in one place and often the words from the question and the answer are in the same sentence.

For example:

- \* Where does this person live?
- \* What does this person do for a living?
- \* When does this story take place?

# \* Question & Answer Relationship

## ***Think and Search***

These answers can be found in the text, but involve higher level thinking like comparing/contrasting, drawing inferences, describing the mood, setting, or symbolism.

*For example:*

- \* What are the important ideas in this text?
- \* What are the character traits that you see in the main character?
- \* What kinds of challenges did the person face?
- \* What are the persons' major accomplishments?
- \* How can you prove that this person is (brave, loyal, kind, etc.)?
- \* Based on the text, what conclusion can you draw about...?
- \* What clues in the text help us understand the word...?
- \* What does this article mostly describe...?

# \* Question & Answer Relationship

## ***Author and Me***

The answer is not in the text. Students must think about what they learned from the text and what they know to generate an answer.

*For example:*

- \* Why did the author...? What was the most surprising part of the book or article?
- \* If you could interview the author, a character, historical figure, or person of interest what would you ask?
- \* If you could add to, take away, or change a part of the book or article what would you change and why?
- \* What questions do you still have about this topic?
- \* Why should/shouldn't people (use something from the article – exercise every day, bite their fingernails, etc.)?

# \* Question & Answer Relationship

## *On My Own*

The answer is not in the text. Students must rely solely on their own interpretation experience to answer the question.

For example:

\* Have you ever...(done something brave, competed in sports, climbed a mountain, etc.)? What was it?

\* When have you (felt proud, rode your bike for the first time, felt ashamed, etc.)?

\* What do you think it would be like to...(climb a mountain, fly a plane, compete in the Olympics)?

\* What do you think about...(kids having a hobby that could be possible dangerous, etc.)?



**"Once you have learned how to ask relevant and appropriate questions, you have learned how to learn and no one can keep you from learning whatever you want or need to know."**

*Neil Postman and Charles Weingartner  
(Teaching as a Subversive Activity)*



**David Thornburg on the Evolving Classroom  
(Big Thinkers Series)**

<http://youtu.be/R4CeceFQAJ8>

**"Children enter school as question marks and leave as periods."**

*Neil Postman*

**"You start a question, and it's like  
starting a stone.**

**You sit quietly on the top of a hill;  
and away the stone goes, starting  
others."**

Robert Louis Stevenson



# \*Resources

## **Beyond Monet: The Artful Science of Instructional Integration**

by Barrie Bennett and Carol Rolheiser (2006)

## **Strategies That Work: Teaching Comprehension to Enhance Understanding**

by Stephanie Harvey and Anne Goudvis (2000)

## [PBL - Who IS in Charge? What Tools can Help?](http://theconstructionzone.wordpress.com/2010/01/03/pbl-who-is-in-charge-what-tools-can-help/)

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## [The Question Mark](http://www.questioning.org/)

<http://www.questioning.org/>

## [Read, Write, Think](http://www.readwritethink.org/)

<http://www.readwritethink.org/>

## [Reading Quest](http://www.readingquest.org/)

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