Developing More Curious Minds

by John Barell

Questioning Texts

The mind-forged manacles I hear.

—William Blake, "London," 1794

When I was in high school, my marvelous English teacher, Claire Slattery Heffernan, introduced us to the mystic and romantic English poets. One of my favorites was William Blake. I liked his poetry probably because I was going through a phase where I had visions of growing up to be a Trappist monk. But my other passion, Antarctic exploration, became dominant. Eventually, I sailed off to college and joined the Navy, deciding not to be the silent Trappist standing at the South Pole.

One of Blake's poems that always raised questions in my mind was "London." Here the poet speaks of wandering through the "charter'd" streets of London "Near where the charter'd Thames" did flow, seeing "marks of weakness, marks of woe."

In every cry of every Man,In every Infant's cry of fear,In every voice, in every ban,The mind-forg'd manacles I hear.
(Blake, 1946, p. 112)

I'm sure Mrs. Heffernan had us interpret these lines, providing us with clues and cues to look at in order to arrive at our conclusions about Blake's meanings. She urged us to figure out what the poet intended by "mind-forg'd manacles." What were they? "Manacles" are like shackles, things that hold us down and restrain our freedom of movement. We become manacled in prisons of our own creation. I wondered what that meant for my own life. Where had I created barriers to my own successes? How had I squelched my own personal and professional development with these "mind-forg'd" imprisonments?

These were questions that have been part of the deep geology of my psyche ever since I took her high school class in Wellesley, Massachusetts. I generated them from reading literature at the prompting of an outstanding teacher. It has taken me the better part of a lifetime to realize their truth and to begin to deal with some of the self-inflicted "manacles" I have created.

Perhaps for masterpieces of literature we do not need specific strategies. If we are intrinsically interested in the subject, we will allow our minds to playfully generate questions about the text. We might not need teachers to probe and prod us toward wondering about how the poet speaks to us.

But for others like me, we need help in figuring things out. We can benefit from structures and strategies that help us focus on the most important concepts in a poem like Blake's "London."

The KWL Strategy

The KWL strategy has had one of the most positive effects in influencing students' ability to read effectively (Ogle, 1986, pp. 564–571). The letters "KWL" stand for the questions:

K "What do we think we **know** about whales?"

W "What do we **want** to find out about whales?"

L And, after reading, "What have we **learned** about whales?"

Known as a prereading strategy, this approach is effective in tapping into readers' prior knowledge, thereby preparing them for learning (Marzano, Pickering, & McTighe, 1992, p. 39).

I'm sure you've thought of a number of reasons. Here are some others:

- We can determine the extent of students' prior knowledge of facts, skills, and concepts.

- Their now-activated prior knowledge provides students with a structure within which to assimilate new knowledge.

- Students learn that they, collectively, as an entire class, know quite a lot about a certain subject (for example, whales), and this is likely to make them more interested.

- The process of tapping into what students think they know often results in identifying misunderstandings, which other students will immediately challenge. For example, I once used the KWL strategy when teaching a 5th grade class about Christopher Columbus and the Age of Exploration, and one student said Columbus was born in Spain and was related to Queen Isabella. Another 5th grader quickly corrected him.

The second question, "What do we want to find out?" or "What do we need to determine?" has many benefits as well. What are some of them?

- When students generate their own questions, this provides them with a sense of ownership.

- This process also enhances students' motivation: We are trying to answer students' questions, not only have students answer teachers' questions.

- Challenging students to identify what aspects of a subject they are curious about is bound to bring to light some contradictory information, some puzzles, and raise students' doubts about their own and classmates' understanding about the subject—for example, whales. One student may say, "Whales are becoming extinct." This may surprise a classmate, who then wants to know "Why?" and another student will certainly ask a question most important to critical thinking—"How do you know?"

The final question "What have we learned?" is an obvious opportunity to compare what we "thought" we knew with what we in fact did find out. It is also a wonderful occasion for students to keep apprised of the full extent of what they have learned and compare it with their prior lack of knowledge. Actually comparing the before and after concept maps and preserving them as parts of students' portfolios can be a very worthwhile endeavor.

So engaging students' curiosities before they set out to read about any topic is a proven-by-research strategy that enhances the meaningfulness of the learning experience. In Chapter 8 we will discuss an expansion of this prereading strategy as a way of thinking about longer-term curricular units.

Modeling *Othello*

As we mentioned in Chapter 3, it is a good and proven strategy to model the behavior we want others to emulate (Bandura, 1986). In this case I found myself asking the three KWL questions about Shakespeare's *Othello* before teaching it to college freshmen and sophomores. Most of what I found out was that some people knew the plots of various Shakespearean plays; others knew a little about the Globe Theatre and how it was constructed. Some other

students were voluble in expressing their displeasure with how studying Shakespeare had been approached in the past.

The questions students developed came less from our initial considerations of what they did not know about Shakespeare than from puzzling situations in the play that arose as we read and acted it out.

Philosophy for Children

Perhaps the most comprehensive and model thinking program that I have had firsthand experience with is Matthew Lipman's Philosophy for Children. This program is based on the notion that very young children are good thinkers who teachers can involve in good discussions about philosophical topics if the students are meaningfully engaged in reading interesting stories.

Lipman, who was a faculty member at Montclair State University, in Montclair, New Jersey, during my own tenure there, wrote his own stories. One, called *Harry Stottlemeier's Discovery*(1982), was written for upper elementary school students, and is perhaps the most famous of all of Lipman's stories.

I was fortunate enough to attend much of a two-week training session on many of the program's novels and the strategies used to encourage thinking among young people. The strategy often consisted of children reading the story in segments, with each child taking a different portion. Then students stated what they found interesting or challenging and the teacher wrote these observations on the board. Next, students identified which comment they wanted to discuss. As you can see, the strategy is very student driven, giving students opportunities to analyze and pose questions on that which they find meaningful.

Asking students to identify what they find interesting in their reading, then having students generate questions for discussion is the strategy that I most often use in working with literature. Some practice stems for eliciting meaning from text include:

- What I find most interesting here is . . .

- The big ideas here are . . .

- I wonder why . . .

- What confuses me is . . .

- I can relate this episode/segment/story to . . .

- This makes me feel . . .

One of the most fascinating books I've ever read and taught is Dostoevsky's *The Brothers Karamazov*, first printed in 1880. This is a complex, often violent tale full of sin, debauchery, patricide, epilepsy, and courtroom drama. But throughout the story we find Dostoevsky's search for meaning in life and for the nature of God's presence in the world. One of his characters, an intellectual named Ivan, writes a poem called "The Grand Inquisitor," which he presents to his brother Alyosha, who at age 20 entered a monastery to escape the "darkness of the wicked world."

In the following passage, Ivan presents his poem to Alyosha, describing what happens when Jesus Christ returns to earth during the Spanish Inquisition of the 16th century. Christ enables the blind to see and the dead to live again, but then is accosted by the Grand Inquisitor: "Why did You come here, to interfere and make things difficult for us? You wanted people to be free, to think for themselves. You have seen free men. Yes, that business cost us a great deal . . . but at last, in Your name, we saw it through. For fifteen centuries we have been wrestling with Your freedom, but now it is ended and over for good." Then the Grand Inquisitor gives Christ his reasons for denying men their freedom:

> Man was created a rebel and how can a rebel be happy? . . . men can never be free because they are weak, vicious, worthless, and rebellious. . . . So long as man remains free he strives for nothing so incessantly and so painfully as to find someone to worship . . . . I tell

You that man is tormented by no greater anxiety than to find someone quickly to whom he can hand over that gift of freedom with which the illfated creature is born . . . . Men rejoice at being led like cattle again, with the terrible gift of freedom that brought them so much suffering removed from them . . . . We will convince them that they will only be free when they have surrendered their freedom and submitted to us . . . . Freedom, free thought, and science will lead them into such straits and will bring them face to face with such marvels and insoluble mysteries, that some of them, the fierce and rebellious, will destroy themselves, others, rebellious but weak, will destroy one another, while the rest, weak and unhappy, will crawl fawning to our feet and whine to us: "Yes, you were right, you alone possess His mystery, and we come back to you, save us from ourselves!"

As the Grand Inquisitor awaits an answer, Christ approaches him and kisses him "on his bloodless, aged lips."

Reflective Pause

Using the text from this story, we can model for our students a variety of observations and questions. Read the text, think about the scene, creating an image in your mind, and then jot down a few observations and/or questions.

Here are some questions others have asked:

- Who is the Grand Inquisitor and what did he do during the Inquisition?

- What was the Inquisition?

- Why does the Grand Inquisitor think human beings cannot live freely or cannot tolerate the "terrible gift of freedom"?

- Most of us seem to value our freedom. Why would anybody surrender it as a form of worship?

- How can knowledge and thinking ever be detrimental to us?

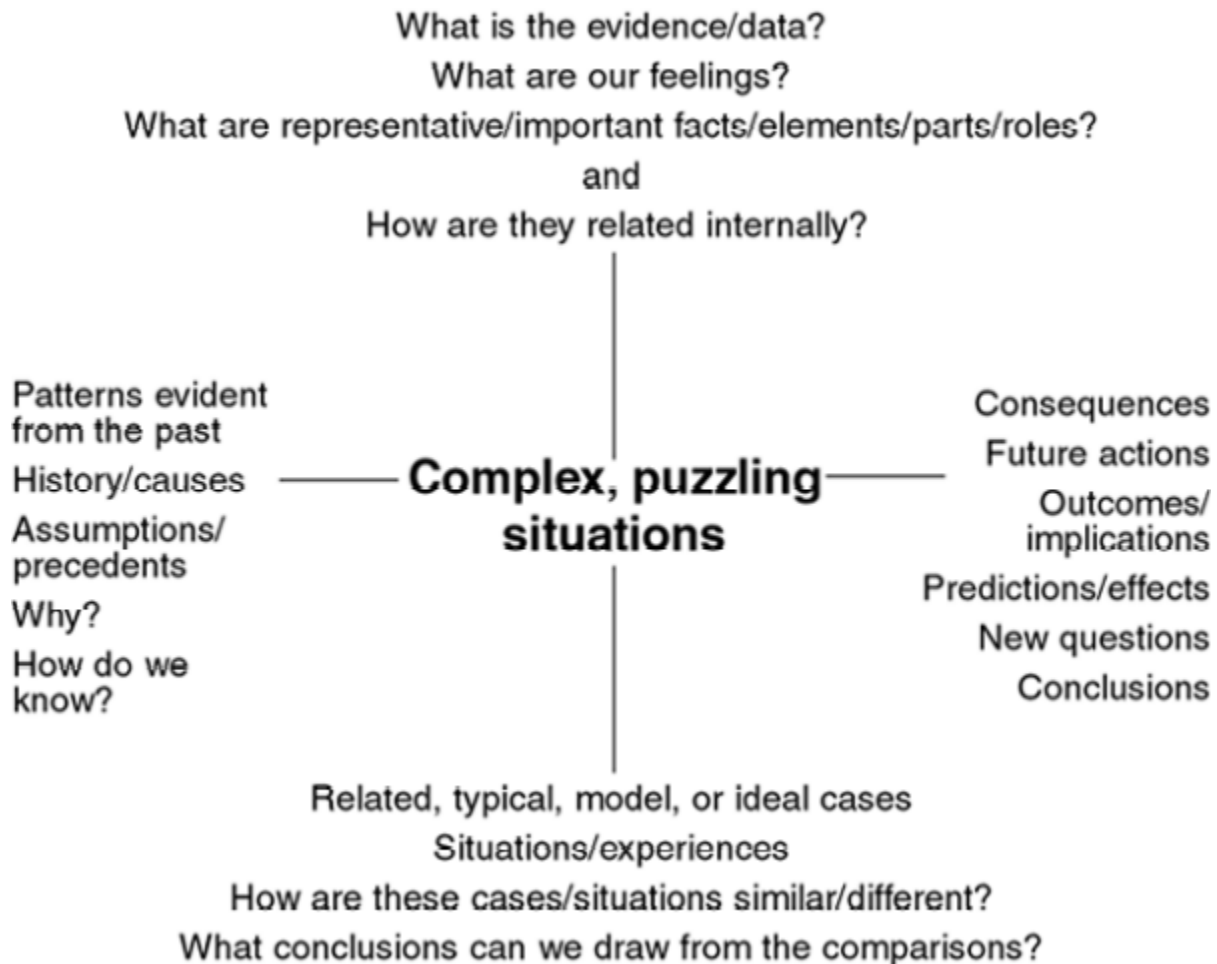- How would you respond to the Grand Inquisitor?

If we use the Three-Story Intellect from Figure 4.2 to analyze our initial questions, we can see that some of these questions are asking for information. They are what reading teachers would call "reading the lines." There are also processing, or "reading between the lines," questions here. Perhaps the last one is what we might call "reading beyond the lines."

What would be an example of a Level II processing question? Perhaps asking students to compare/contrast, analyze, and draw conclusions? For example: "Compare the message of the Grand Inquisitor with another person's (or your own) on the nature of being human (rebellion, corruption, and the need to worship) and on the value of freedom." And "If the Grand Inquisitor is accurate in his observations about the masses of humanity, what would you predict about the status of civilization tomorrow, and years into the future?" (Level III, or application question).

Questioning Frames

Over the years I have attempted to analyze situations to determine the kinds of questions we might pose about them. One result has been the development of what I call Questioning Frames, modeled after work of David Perkins of Harvard on frames for thinking (David Perkins, personal communication, July 1990). Figure 6.1 is a frame I have used over the years to analyze a variety of complex situations and issues.

Figure 6.1. General Questioning Frame

What is the evidence/data?

What are our feelings?

What are representative/important facts/elements/parts/roles?

and

How are they related internally?

Patterns evident from the past

History/causes ——— **Complex, puzzling situations** ———

Assumptions/precedents

Why?

How do we know?

Consequences

Future actions

Outcomes/implications

Predictions/effects

New questions

Conclusions

Related, typical, model, or ideal cases

Situations/experiences

How are these cases/situations similar/different?

What conclusions can we draw from the comparisons?

Try using the Questioning Frame in the figure with the following news item.*

CAPE CANAVERAL, Fla. Feb. 11 (2001) AP—Two space commanders opened the door today to Destiny, the American-made science laboratory that is the newest and most expensive addition to the International Space Station.

The moment the hatch was raised by the astronauts, William M. Shepherd and Kenneth D. Cockrell, space station Alpha became the largest orbiting outpost ever in terms of habitable volume.

"It looks awesome," Mission Control told Mr. Cockrell. "We hope you guys enjoy your new room on your house . . . . "

In a brief ceremony, Mr. Shepherd signed for the delivery of the $1.4 billion laboratory, which had been installed by the visiting shuttle astronauts on Saturday. The laboratory is intended to give the orbiting outpost the ability to do cutting-edge science over the next 10 to 15 years.

The Destiny laboratory, 28 feet long and 14 feet wide, was a brilliant white inside. Its shelves and wall compartments were covered with strips of protective cloth that the crew members promptly removed. On one of the wall covers were a

couple hundred signatures of those who had prepared Destiny for flight, along
with these words: "Dreams are like stars; you choose them as your guides, and
following them, you reach your Destiny . . . . " (Associated Press, 2001, p. A16)

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Reflective Pause

By now, the Space Lab may be fully functioning. What sparks your curiosity from this story about the
Destiny *space laboratory? Use the written-out version of the Questioning Frame.*

Here are some of my own questions, generated from using the Questioning Frame:

- How long did it take to create *Destiny*? Who built it? What difficulties, if any, did they have? (History)

- What are the key elements within this very large structure and what are their purposes? What roles will scientists play in the lab? (Representative elements)

- How does *Destiny* differ from SkyLab projects? From the Russian space station, *Mir*, launched in 1986, that burned up plunging to Earth in 2001? How is it similar to or different from an "ideal" space station? (Relate to others)

- What are the implications for science? For interplanetary space travel? (Conclusions, consequences)

- What do we need to do to ensure success for this experiment?

- What would happen if we abandon the space station as, for example, too costly?

Reciprocal Teaching

Reciprocal teaching is a strategy that brings teacher and students into dialogue about the essential ideas within a text. Developed by Palincsar and Brown (1985), it consists of teaching students four different comprehension strategies:

1. Summarizing the most important information in the text

2. Generating questions

3. Clarifying for meaning

4. Predicting what the author will say in the following text

As you can see from these questions, they are student centered and proactive, and at least two of them require that students be able to identify important or confusing information and pose questions.

Historical Perspective. What are the causes of the situation? What led to the events observed? What assumptions are we operating under? Are there historical precedents or patterns that might be evident or instructive?

Key Elements

- What is the evidence before us?

- What are the important facts, elements, or parts?

- What feelings do we have about this situation?

- What are the significant roles people are playing?

- What relationships exist among the various elements? ("*consonantia*")

- Which elements or facts are most important and why?

Significant Relationships

- How is this situation related to others? How is it separate and distinct? ("*integritas*")

- Are there model cases of this situation that exemplify "typical" elements?

- How would you compare this situation with others? What are the similarities and differences?

- What conclusions do you draw from these comparisons? What alternative conclusions are possible?

- What is the essence ("*quidditas*") of this situation? What makes it meaningful or unique?

Projections into the Future

- What do you predict might occur in the future?

- If we modified one or more of the variables, what might then occur?

- What are the implications, now and in the future, of this situation?

- What do we predict would be the consequences of action we might take?

Research indicates that students taught with this method have improved in both their comprehension scores and the quality of their dialogue that occurred daily in class. "Experimental students functioned more independently of the teachers and improved the quality of their summaries over time. In addition, students' ability to write summaries, predict the kinds of questions teachers and tests ask, and detect incongruities in text improved" (Palincsar, 1986, pp. 19–20).

Reciprocal teaching is, in microcosm, an excellent example of what classrooms can become—opportunities for students to share more control in their own learning. By encouraging students to pose meaningful questions about

what they know or don't understand, teachers become more responsive to students' needs and to the directions in which they are growing.

The World Wide Web—Another Form of Text

We have considered traditional books as our primary texts in this chapter. But Web sites and related information available on the World Wide Web also can be considered as texts worth reading and evaluating. This is an area where we as educators must be ever diligent. For example, when researching this chapter I searched www.google.com for the term "reciprocal teaching." One of the sites was the North Central Regional Educational Laboratory (NCREL), a federally funded research laboratory in suburban Chicago that I have worked with in the past (http://www.ncrel.org/sdrs/areas/issues/students/atrisk/at6lk.38.htm); another site I did not recognize at all (http://ed-web3.educ.msu.edu/literacy/stuwork/recip.htm).

Now, what questions should I be asking about these two sites? What do you think?

Of course, the first question is, "What is the important information on this site and can I believe their representation of it?" The first site, NCREL, consisted of one long quotation from one of the program's creators, Ann Marie Palincsar. NCREL's function is to conduct research on educational matters; therefore, I found this Web site devoted to reciprocal teaching to be believable.

But I did not recognize the other site. There was no name prominently displayed anywhere. No credentials were given. But the Web site's Internet address (http://ed-web3.educ.msu.edu/literacy/stuwork/recip.htm) has some key words in it. For example, we recognize "edu" as the signifier of an educational institution, often one involved with higher education.

There were other positive factors. The citations were mostly recognizable and the text contained information on the program that replicated what I'd found at the preceding site where the author of the program was cited. So the information was verifiable.

Now, one of the things we need to do with our students is to develop our own set of criteria for a good Web site. These criteria can consist of questions we might ask in order to determine its believability, usefulness, timeliness, and comprehensiveness. You might undertake this valuable task before reading Chapter 9, where we investigate Web-based information thoroughly. Challenge your students to develop their own set of criteria for assessing whether a Web site is valuable.

Conclusion

Raising questions from reading a text is a process of interpretation and of acquiring meaning. But there is more to it than that. When we question an author's words (or a painter's images) we are beginning a process of dialogue with the artist. We are starting to project ourselves into the work of art and beginning to think along with its creator. As John Dewey (1934) suggests, we are "recreating" the work in our own mind, searching out what is significant and how the work of art is organized.

In James Joyce's *A Portrait of the Artist as a Young Man*, Stephen Dedalus creates amazing images of his aspirations for being an artist that have served as a source of inspiration for me. His thoughts are ones that I have mulled over in my mind ever since I first read this book in Wilbury Crockett's senior English class at Wellesley High School, trying to imagine myself as Joyce and as Stephen. At the sound of someone calling his name (Dedalus) by the sea, Stephen reflects:

> Was it a quaint device opening a page of some medieval book of prophecies and symbols, a hawklike man flying sunward above the sea . . . a symbol of the artist forging anew in his workshop out of the sluggish matter of the earth a new soaring impalpable imperishable being?

And at the novel's end, he proclaims, "Welcome, O Life! I go to encounter for the millionth time the reality of experience and to forge in the smithy of my soul the uncreated conscience of my race" (Joyce, 1916/1956, pp. 169, 253).

What are the lives that we are forging in the smithies of our own souls?

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