The Reading Room

September 2007

WEAC

WISCONSIN EDUCATION ASSOCIATION COUNCIL

an NEA Affiliate

OnWEAC

By Doug Buehl

Modeling Self-Questioning on Bloom's Taxonomy

The answer is: *Grover Cleveland*.

But what is the question? Students have become well conditioned to answering questions, especially those that feature expected responses like *Grover Cleveland*. The questions may vary: "Who was the only president whose two terms in office were not consecutive?" or "Who was the only Democrat to serve as president in the years between 1861 and 1913?" or even "Who was one of the pudgiest fellows to occupy our nation's highest office?"

Students know how such questions "work." Often, they merely need to undertake some minimal surface sampling of a text in order to derive an acceptable answer. Questions like these are rarely much of a challenge, students can answer them rather quickly, and even struggling readers can frequently get through them with little assistance.

But literal, fact-level questions – like the ones outlined above – have little to do with the comprehension of written texts. Researchers have long cautioned us that these questions can in many cases be answered even if a student is confused about a text's meaning. In other words, questions asked ostensibly to help students "get the facts" rarely help students to construct an understanding of an author's message. Students can find answers, but they miss the important questions – the questions they should *pose to themselves* to guide their reading and learning.

Because the answer is not *Grover Cleveland*. *Grover Cleveland* is the question.

Grover Cleveland? Why Grover Cleveland? What's the significance of his presidency? What is it about Grover Cleveland that is important to know? In what ways did his actions change our country? How did Cleveland's solutions to the country's problems compare with other presidents? What are we to conclude about Cleveland – is he worthy of extended study or should he be relegated to a cursory glance before we move on to more compelling topics? Grover Cleveland?

Of course, the questions in the previous paragraph sound very much like the questions history teachers ask themselves as they grapple with setting priorities for instructional emphasis. Okay, the textbook has a section on Cleveland. Do the students need to read it? And for what purpose? Why is it truly worth their time as learners to zero in on this president? These are excellent questions, too good to be asked solely by teachers. Students also

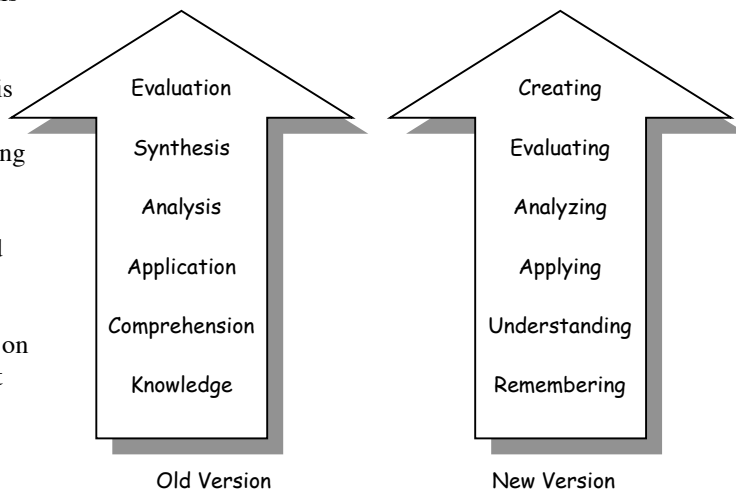need to be asking *themselves* such questions. And attempting to answer them.

The Strategy

Obviously, one concern being aired in this column is the disproportionate asking of detail-oriented questions. A steady drumbeat of research continues to confirm that 90% or more of the questions students confront in school fall into this category. Most educators are well familiar with Bloom's Taxonomy of Educational Objectives, first established in 1956, which argued that teachers need to prompt more complex thinking from their students. Often the taxonomy is employed to help teachers ask better and deeper questions. But the other side of this dynamic is for teachers to model self-questioning strategies so that students *themselves* begin to generate increasingly more sophisticated questions as they engage with written texts.

Bloom's Taxonomy was updated by Anderson and Krathwohl in 2001 (see diagram below). The revised version presents an excellent framework for guiding comprehension instruction as students read and learn during classroom lessons.

Step 1: Walk students through the different levels of thinking in the revised taxonomy. Notice that the revised version emphasizes strong verbs as cues for thinking: *remembering, understanding, applying, analyzing, evaluating,* and *creating*. Model as a think-aloud how different levels of thinking influence your comprehension.

The "Revised" Bloom's Taxonomy

Old Version	New Version
Evaluation	Creating
Synthesis	Evaluating
Analysis	Analyzing
Application	Applying
Comprehension	Understanding
Knowledge	Remembering

For example, a think-aloud based on an article on the Great Wall of China: *Hmmm . . . What does this author want me to understand about the Great Wall? Large sections are being eroded by sandstorms. Why does the author argue this is happening? Let's see . . . farming practices that have drained underwater reservoirs have led to ecological change, leading to sandstorms, which cause the wall to crumble. What crucial information should I remember? Predictions are that parts of the wall will disappear in only 20 years. How can I use this knowledge? Perhaps we need to be more careful in how we use natural resources, or we may suffer similar climate changes that can destroy features that have lasted for centuries. Does this information seem reliable? The author supports these conclusions with lots of convincing data and quotes an esteemed museum director. How has my understanding changed? I realize that even long-standing treasures like the Great Wall can quickly fall victim to climatic change.*

Step 2: Relate each level of thinking to a comprehension statement (see middle column in Self-Questioning Chart). For example, *evaluating* asks a reader to view a text through a critical lens: "I can critically examine this author's message." Each statement reflects an expectation of a level of thinking that a reader should factor in to construct an in-depth comprehension of a text.

Step 3: Align a focusing question to each statement of the taxonomy (see third column in Self-Questioning Chart below). Emphasize that proficient readers constantly check their comprehension through self-questioning. For example, when readers ask themselves: "How has the author's perspective influenced what he/she tells me?" they are evaluating a message.

Developing a wall poster of the Self-Questioning Chart can serve as a daily reminder of this array of questions to guide comprehension.

Step 4: As students become practiced with eliciting focusing questions on their own, they can be provided with additional examples. *Analyzing* could also include questions like: "How does the author support these ideas?" Companion questions for *Evaluating* might be: "Does the author adequately support these ideas?" "Is the argument convincing?" "Did the author omit or overlook other possible arguments or evidence?"

Advantages

Teaching students focusing questions that cue them into increasingly more complex thinking helps them become more sophisticated readers and learners.

- Students begin to assume responsibility as readers for asking relevant questions of written texts.
- Students gain practice beyond a mere (and often mindless) attention to factual detail, to the exclusion of understanding.
- Students begin to customize questions that draw them deeper into texts as a habit of mind.

Further Resources:

Anderson, L. & Krathwohl (Eds.). (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York, Toronto: Longmans, Green.

Reading Room archives Posted September 7, 2007

Taxonomy Self-Questioning Chart

Level of Thinking	Comprehension Statement	Focusing Question
Creating	I have created new knowledge.	How has this author changed what I understand?
Evaluating	I can critically examine this author's message.	How has the author's perspective influenced what he/she tells me?
Analyzing	I can take my understanding to a deeper level.	How is this similar to (or different from) other material I've read?
Applying	I can use my understanding in some meaningful way.	How can I connect what this author is telling me to understand something better?
Understanding	I can understand what the author is telling me.	What does this author want me to understand?
Remembering	I can recall specific details, information, and ideas from this text.	What do I need to remember to make sense of this text?