Kenneth Chuska. 1995. *Improving Classroom Questions*. Bloomington, Indiana: Phi delta Kappa Educational Foundation.

There is a difference between ways of thinking and thinking skills. For example, *ways of thinking* include analyzing, comparing, contrasting, interpreting. Thinking skills can include learning better how to see patterns in a body of content, find themes, note sequence or order and so on. Give examples of questions or exercises that would enable develop in each of these areas. (See page 25)

To establish where to start with instruction, Chuska advocates the use of four questions: What do you already know about the new topic? What do you think you know? What do you want to know? What do you feel or believe about an issue or problem? (31)

"It is not the teacher's role to assume responsibility for changing students' personal opinions. Rather, the teacher's responsibility is to use questioning strategies that will provide students with processes with which to understand the bases for their beliefs, feeling, and opinions. These processes should emphasize the steps of analysis, evaluation, or reflection, which students can use throughout their lives" (32).

During a session, the purpose of questioning is "to *inspire thinking and reflection* as the learning takes place; to allow students to *review material* as learning progresses; to involve students in *evaluating* their understanding of implicit and explicit learning; to encourage them to "*think ahead*"– to predict, anticipate, and identify trends or patterns" (34).

"Students must learn that anything that calls for reading, viewing, practice, or listening also calls for analyzing and critiquing" (34).

Chuska gives several categories of questions that can be used after a learning session (37-38):

1. To determine consequences of actions, ideas, and situations.

What will happen now? Who is or was affected? What problems could arise? What are the positive and negative consequences? What factors might have changed the outcome?

2. To summarize.

What were the main features? What are the most important outcomes? Who had the most impact on the outcomes? What needed to be considered?

3. To identify examples or analogies. What else is this like? 4. To reflect on what was learned.

What can be applied to other situations? What does this learning have in common with what you have learned before? How does it apply to our lives?

5. To draw conclusions.

What is the value of this learning What have learned that can be applied to your lives? What skill or mastery have you acquired?

- 6. To synthesize information and use it, along with past learning, in new ways. What new or different thoughts or ideas did you have?
- 7. To extend students' learning.

What information do you need to satisfy your understanding? What new questions, concerns, or interests arose during the learning?

Chuska suggests that because questioning is a skill, criteria are required to help us determine the level of proficiency in acquiring and using the skill. He suggests the following criteria:

- 1. There is differentiation between questions for short-term learning and for long-term learning.
- 2. The questions enable students to apply what they learned to learning related material.
- 3. The questions establish relationships with past and future learning.
- 4. The questions help students to relate the material to their lives or to society by applying it or by making analogies.
- 5. The questions allow students to see the usefulness of the lesson for applying their new knowledge or being able to do something new.
- 6. The questions encourage students to use the factual information to develop concepts, generalizations, laws, and principles that can be applied to learning.
- 7. The questions provide practice in appropriate and important skills in addition to reinforcing content.
- 8. The questioning strategy does not ask predominantly for recitation but calls for students to respond individually from the perspective of their own lives.
- 9. The questions are ask in a way that is nonthreatening and that avoids putting students on the defensive or embarrassing them.
- 10. The questions convey genuine interest in the way the students respond and in the content of the responses.
- 11. The questions reveal something about the students or the topic that the teacher did not anticipate or know previously. (38-39)

Chuska provides 19 categories into which student responses might fall and gives several questions in each category that can be used to deepen or challenge the response. Fifteen of the categories follow. See pp. 60-65

1. Supportable or insupportable responses.

Where did you find that information? Where did you get that idea? Whose idea was it originally? What support do you have for that?

2. Students' opinions, feelings, beliefs, ideas, or positions.

What or who led you to feel or believe that?
How long have you believed that?
How does that feeling or belief affect your life?
Are there any reasons that would cause you to change your feeling or belief?
Do others that you know feel or believe the same? Differently?
What would cause others to believe that or feel the same way?
Would your opinion be the same if (propose a different situation)?
Here are some objections that I have heard to that opinion. How would you respond to these?
I'm going to restate what you have said. Is this accurate?
What assumptions are you making?
How does your feeling or belief fit in with (provide counter-example)?
How does that feeling or belief affect your life?

3. Responses based on students' experiences.

How many times has this occurred? Give some examples. Where, or with whom, did this occur? What are the consequences of having had that experience? Have other people you know had that experience? How have you handled other experiences that were unlike that one? How is your experience similar to or different from the situation described? What conditions might have changed your experience or its outcome?

4. Predictions or hypotheses.

What information enabled you to make that prediction?What assumptions are you making?What or who is the source of your information?What conditions have to exist for the prediction to come true?What would be some consequences if your prediction came true?What conditions or circumstances could happen that would change your prediction?If the prediction should be changed, what could an individual or group do to change it?How could we set up a situation to test it?What are the pros and cons of your predicted result?

5. Responses in the form of questions.

Tell me more about your question. What caused you to raise the question? What don't you understand? What do you mean by . . .? Do you mean . . .?

6. Responses in the form of analogies.

What made you think about that as an analogy? In what ways is the analogy like the situation, action, or idea? In what ways is it different? Explain how the analogy helps you to understand the situation, action, or idea?

7. Vague responses.

Explain what you mean by that.

What is the basis for that response? How many examples can you give? Here is another example of the situation. How does that fit in with your statement? How could we test your statement? How often does it happen?

9. Biased or prejudicial responses.

How do stereotypes develop?

Why do you think this characteristic is typical of that person, group, or situation? Give some examples or experiences that support your response. Have you had many interactions with the people in this group?

Can you think of any examples that go against that stereotype?

What would take to change your point of view?

In the next two weeks, make a list of all the situations that support your point of view.

10. Mis-directed responses.

If I had asked you _____, your answer would be appropriate. However the question was_____.

- 12. *Responses that students think the teacher wants to hear.* Is that what you really believe?
- 13. Responses based on emotion.

Is this inaccurate statement of what you were saying? (Paraphrase) It seems that you feel strongly about this. How do those feelings affect your actions? What experiences have you had that made you feel so strongly about this? Why do people feel strongly about things? Why not? What positive actions can be taken because of your feelings? What negative results might occur? What can be done to cause people to explore their strong emotions?

14. The student refuses to accept information that contradicts or refutes his or her response. Let's suppose you are right. What are the consequences, outcomes, results of that thinking?

Let's think about this in another way. Suppose . . .

How would you feel if . . . ? (Give counter-examples, state different positions, or assign a different role.)

Let's suppose I felt that you were right (or wrong). What questions would you ask me? List your reasons for your position.

How does that position affect your daily life?

Here's a scenario. React to it from your position.

15. Evaluations or judgments.

What criteria or standards did you use in making your evaluation?
Here are some other criteria. Would they affect your evaluation? How?
If your evaluation is valid, what would strengthen the negative parts? Overcome the missing elements? Improve the object of the evaluation?
Hall will your evaluation affect your future actions or decisions?
In what ways could you improve your evaluation abilities?

16. Interpretations or conclusions.

What are the various factors or elements that affected your interpretations or conclusions? What data do you have to support your conclusion? Explain the process that you went through in arriving at that conclusion. What do you predict would happen as a result of your conclusion? How could your conclusion be tested? What are the consequences if your conclusion is valid?

17. Controversial responses.

What are the causes of the controversy?

What are the different positions?

What would you use to defend your position?

Your assignment is to defend each other's positions.

What are some areas of agreement?

State those positions that you feel that you cannot change, and list your reasons.

Evaluate each aspect of the other positions.