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Section I: THE CRITICAL THINKING TOOLBOX

Some of the most basic concepts and principles in critical thinking can be thought of as tools your students can use to improve the quality of their thinking. Although becoming an expert in critical thinking takes long and persistent effort, you should see immediate changes in students’ behavior and thinking as you introduce each tool discussed. It is rewarding to see these initial improvements widen and deepen as you continue teaching for critical thinking. In this section we have included the parts of thinking, the intellectual standards, and the learning strategy called the “DOXI.” Before introducing these concepts, note that the Paulian Framework, or Paul and Elder Framework, for Critical Thinking entails the following main theoretical components (Paul & Elder, 2010, p. 19):

Critical thinkers routinely apply intellectual standards to the elements of reasoning in order to develop intellectual traits.

Diagram 1

Though *The Miniature Guide to Critical Thinking for Children* focuses on each of these concepts, in this Handbook we focus primarily on the parts of thinking and standards for thought. To cultivate intellectual traits in students, which is necessary if we are to foster fair minded critical thinking, see the suggestions in the *Teacher’s Manual to the Children’s Guide* by Linda Elder (2002).
THE DOXI

Thus far, we have introduced the parts of thinking and the intellectual standards as principal tools (along with intellectual dispositions) in a Critical Thinking Toolbox. Now we will introduce you to a very helpful strategy for helping students understand and internalize important concepts. Since the parts of thinking are all concepts, as are the intellectual standards, this strategy can be used to help children understand and learn them (as well as other concepts). We call this strategy the DOXI. Each letter of this acronym stands for a step in the strategy, making it easy for children to remember. We have found that adding the “DOXI, the Dachshund” visual to the DOXI template, endears it to children. In the first step, students write the “dictionary Definition” of the concept. In the second step, students write the definition in their “Own words.” Third, students give an “eXample” of the concept. In the fourth and final step, students provide an “Illustration” of the concept. The illustration can be a drawing, an analogy, another example, a graphic organizer, a poem, a role-play, etc. – anything that helps them better understand the concept.

| Name ________________________________ |
| Date ________________________________ |

DOXI

CONCEPT/WORD

D Definition of the Concept/Word (Write the Dictionary Definition.)
O Own Words (Put the definition in your Own words.)
X eXample (Give an eXample of the concept.)
I Illustrate the Concept (Create a role-play, picture, graphic, dialogue, analogy, or metaphor, showing the concept’s meaning.)

Do not use the DOXI as merely a worksheet—filled out mechanically, the same way each time. It can be used in various ways. You can have students work on it in small groups or in pairs, or have them complete the first two steps individually and then go to small groups for the last two steps. We have found that students enjoy “illustrating” the concept through role-play. This also requires them to discuss the meaning they are trying to convey and to listen to each other. The complete physical involvement strengthens their memory of the concept. However, there are many ways to illustrate a concept, including drawing a picture of it. The DOXI is most effective if teachers vary how they use it and recognize it as an effective means for internalizing powerful ideas.
Section II: CLASSROOM LESSONS WHICH FOSTER CRITICAL THINKING

Introduction

This section includes fifteen lessons that have been classroom tested. They were initially developed for the purpose of bringing fairminded critical thinking alive for third-graders at Potrero Elementary School, located near the U.S.-Mexico border in East San Diego County. For the most part, students at this school, during this project, had limited English skills, were considerably below grade level in reading and math, and were living at the poverty level. From this experience, we developed a logical sequence for introducing the children to fairminded critical thinking. The lessons are numbered according to that sequence. As the lessons progress, we had students use more of the parts of thinking and intellectual standards, and in more complex ways. These fifteen lessons give details about the kinds of activities and materials that can be created to help students become progressively better critical thinkers. Remember, however, that these lessons are merely a starting point. As you develop your understanding of critical thinking you will, by implication, create new and deeper ways of fostering it in your classrooms. Note that we refer to a “Critical Thinking Notebook.” This is a notebook in which students document their critical thinking work and do assignments as required.
From the Classroom: Lesson One

(Note: Before beginning these lessons, each student should be provided a copy of The Miniature Guide to Critical Thinking for Children for their own personal use. This should be a copy they can write in, take notes, etc. Explain that you will be using these guides throughout the year.)

Critical Thinking Focus: Introducing critical thinking and the three kinds of thinkers.

Purpose: To introduce critical thinking and help students begin to think about its importance in life.

Activity 1:
Discussion: Why Learn Critical Thinking?
Questions to use in guiding an initial socratic questioning discussion focused on the importance of good thinking:

• What part of the body do we think with?
• What guides everything we do?
• Is it important to be good thinkers? Why?
• Can we become better thinkers? How?
• What can we do better if we become better at thinking?
• What happens if we don’t practice thinking well?
• What happens if we don’t do a good job of thinking?

Analogy: To explain the idea of “exercising the mind” in thinking:
One makes the muscles stronger by using them, as in lifting weights, etc. One gets better in sports by practicing them. In basketball you practice all the “moves of the game” (dribbling, passing, shooting baskets, rebounding, etc.). In the same way, your mind gets better at doing more things if you practice thinking critically.

Activity 2:
Create a Class Poster - “...if I could think better?”
Ask students to think carefully before responding to this question: What could I do better if I could think better? Students respond to this question as the teacher lists their responses on a large poster. This class poster is put on the wall, and for the rest of the year, the teacher refers to the poster to remind students of their own reasons for learning to “think better.”

Activity 3:
Introduce Page 7 Poster on the “Power of the Mind” (from The Miniature Guide to Critical Thinking for Children)
Make a large poster of page 7. Put it in the classroom where all can easily see it. The poster is a duplication of all that appears on the page, including the drawing of Fairminded Fran. Have students read the first part of the poster: “Critical Thinkers Believe in the Power of Their Minds.” (They can also refer to their own guides.) Discuss the idea of “the mind having power,” since students do not usually associate the word “power” with the mind. Have students read the second part of the poster: “I can figure out anything I need to figure out.” Have students discuss what that means. Have them give examples of things they can figure out with their minds.
Activity 4:

Introduce Page 6 Poster - “...seek better ways of doing things”
Have students read: “Critical Thinkers Seek Better Ways of Doing Things.” Discuss what this means. Have students give an example of seeking a better way of doing something. Read the second part of the poster with students, or have a student read: “There’s always a better way and I can find it.” Ask students if they have ever found a better way of doing something. Have them give examples.

Activity 5:

Introduce Page 3 Poster - “…three kinds of thinkers”
Have three students read aloud about each kind of thinker - each reading one kind. Ask students what they think about each kind of thinker. Which of these kinds of thinkers would they want to be like? Do we all have some of each kind of thinker in us? Sometimes we think like Selfish Sam, sometimes like Naive Nancy, and sometimes like Fairminded Fran. Help students see that the goal is to be more like Fairminded Fran. Discuss why: she’s a happier person; gets along better with other people; people tend to be more fair to her because she is fair to them; etc.

Role-Play
Organize a role-play. In groups of three, students create a brief dialogue in any setting they like (e.g., playground, supermarket, etc.). In the dialogue, one student acts like Selfish Sam, one like Naive Nancy, and one like Fairminded Fran. The teacher models this role-play with the help of two students or aides, but doesn’t tell the class which characters are being portrayed by each person in the role play. At the end of the “model” role-play, the class tells who played each of the three characters by describing the type of thinking and behavior each displayed. Alternately, each group plans and presents its own role-play depicting the three types of thinkers. Then the class identifies which character each person in the group is role playing and explains why.

For additional activities for introducing the three kinds of thinkers, see The Teacher’s Manual to the Miniature Guide to Critical Thinking for Children, Part One. We suggest that you get at least one class set of the masks of Fairminded Fran, Selfish Sam and Naive Nancy for use in role playing. Several class sets would be better, as students really enjoy holding these while role-playing the characters. See pp. 70-72 for ordering information.
From the Classroom: Lesson Two

Critical Thinking Focus: Introducing the intellectual standard of relevance.

Purpose: By the end of the lesson, students will be able to explain the meaning of relevance in their own words. They will be able to demonstrate through role-play what it means for something to be relevant, to what someone else is doing, saying, or writing.

Activity 1:
We perform the following role-play in front of the class.

Dr. Borman: Hi Dr. Levine. On the way over here, I was thinking of some activities we could do with the students. I think they will find them fun. Can I tell you my ideas?
Dr. Levine: Did you see the Padres’ game last night?
Dr. Borman: Dr. Levine, what about the activities I was talking about? You act like you never heard me!
Dr. Levine: (Turns to the class and says) “Why is she talking like that? What did I do wrong?”

Students respond that Dr. Levine is not talking about what Dr. Borman is talking about. They all feel this is not very nice. One student is able to say: “Dr. Levine said something irrelevant.” This student had learned some critical thinking the previous year, as a second-grader.

Activity 2:
Students are asked to read the page 11 poster (and refer to it in their own guides), which features Fairminded Fran’s definition of relevance and questions to help students decide when something is relevant.

Have students read the relevance poster line-by-line, asking the following questions as they read:
- What does it mean “to stay on track?”
- What does “relate to” mean?
- How can you tell when something is relevant to a problem you are trying to solve?
- What questions can you ask when you are not sure whether something is relevant?