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MISSION STATEMENT

Thinking Classroom serves as an international forum of exchange among teachers, teacher educators, and others interested in promoting democratic teaching practices. The publication encourages professional development, research, and reflection. *Thinking Classroom* features articles that foster learner-centered teaching strategies including critical and creative thinking, active and cooperative learning, and problem solving. The journal also publishes articles about the institutional structures that support these practices.

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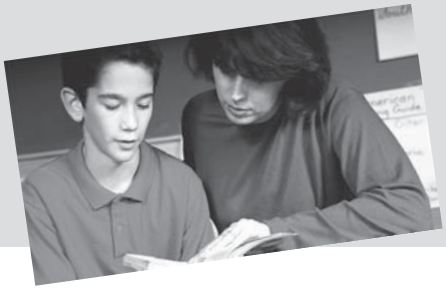

I and We: Group Work

Natalia Gataulina

The eighth class at our school is the first step of the new education stage called lyseum. These teenagers are greenhorns among the senior students. For them, most of the teachers are new, and they may not know their classmates because classes have been merged, and there are many new students in each. Literature lessons begin with the theme "Literature and other kinds of art." However, there is no time to lecture on each kind of art, and general lectures are not useful. I began to think about how to make my class most effective.

One answer was evident: Work in groups. However, that is not so easy in our not-at-all spacious classrooms, packed with students. Besides, my previous experience with group work was not unequivocal and not always positive for a number of subtle reasons. In *The Science to Understand* Brudnyi (1996) said the following about group work:

> Medical practice shows that such an intentionally good event as a consilium—the meeting of medical experts on the diagnosis and ways of treating the patient, quite often does not produce effective results. The outstanding Russian physician V.F. Zelenin even remarked that "the more heads, the fewer minds." Well, minds in class are abundant, as for responsibility, it often lacks as students keep shifting it on one another. (p. 24)

Perhaps these words reflect the main problem of group work: When everyone is responsible, it turns out that no one really feels responsible. There are a lot of factors on which group work depends: structure of groups, designated time, amount of material, level of complexity, and so forth. Only careful planning ensures success.

In most cases it convenient to divide groups of 25 students into 5 small groups, so that if a presentation of each group takes 5 minutes, the 45 minutes of a standard class will be enough to include 15 minutes for group work, 5 minutes for a model lesson, and 25 minutes for presentation. It is also convenient because time for moving around and regrouping the typical space with rows of desks is reduced to the minimum: One pair of students just turns to another pair, and one more person sits at the side. Certainly, the groups should be flexible in terms of members, and 5 people in a group may be expedient when the task is given in advance and groups get together at the very beginning of the lesson.

A group may consist of students not only with a different level of preparation, but also with different temperaments, and their relations may sometimes be complicated. It often happens that one of the best prepared and more confident students takes the role of the leader, distributes the work, and accepts responsibility for decisions. This pattern can be observed not only in a children's group, but also among adults. However, the type of situation commonly found in classical fables, when musicians play discordantly or a cart is drawn in different directions, is not unusual either. This is not always caused by contention among the group members. Students may fail to reach consensus just because they are very different: You can't make a swan move backwards like a crawfish, and a pike will never rise up to the sky. Each student is different, and each is looking for his or her own way and solutions. For a teacher this should not be a cause for irritation; on the contrary, please regard this as a valuable display of individuality and diversity. The teacher's role in this case is to enable each student to express himself or herself, while at the same time enriching knowledge and correcting erroneous ideas. In fact, no one is obliged to know everything!

How can a teacher implement all of these things? Each of my colleagues probably has his or her own recipe. In my opinion, it is most effective to plan assignments in view of group composition, and certainly to make the wording precise and detailed. A good example here is the Jigsaw-2 strategy (Belosevic, 2000) in which expert sheets set a direction in analyzing the text for each group. However, depending on the goal of the work and skills of the students (note that group work itself is really a skill that needs to be formed and developed), the task may be presented in various ways. At the initial stage the group estimates its own strengths in view of the task offered and distributes the material among its members.

It is interesting to observe this stage of work. Teachers may assume that weaker students to whom problem questions will

seem too difficult will take responsibility for answering factual questions, but it appears that distribution of work in a group does not necessarily occur according to this principle. Sometimes a strong student volunteers to state facts and, doing so, brings into focus details that guide weaker students into responding to more complicated questions.

Maybe in university it not so, but at school is very important that everyone takes part in presentation (therefore, I plan the number of tasks or questions according to the number of group members).

The theme of my class is "Literature and other kinds of art." The students work in small groups of 4 persons (two school desks next to each other). Each group receives one of three tasks: to work with a painting, a piece of literature, or an architectural monument. All in all I had two groups independently working at each of the tasks.

Photo: RWCT Kyrgyzstan

Task 1

You see a reproduction of a painting by Dutch artist Peter Breigel called "Falling of Icarus." Try to recollect the myth about Icarus. How do you think the mythological character may look? Look at the picture attentively. What do you see? Who in the foreground? Where is Icarus? How is he represented? What feelings does he evoke in you? Why does the artist represent him in such way? Formulate and write down the author's idea (the main idea) of the canvas. What did the artist do so that you would understand him?

Task 2

Everyone knows the great artist Leonardo da Vinci. But he is less known as an author. Here is a fable written by the great Italian. Usually fables have a moral, but in your text it is missing. Think and write down the moral to this fable. What means of art expressiveness have helped you to understand the author?

Task 3

"Dry" gardens—a good example of which is the Peandsi monastery garden in the Japanese city of Kyoto—were made of "eternal" elements such as pebbles. . Such gardens were called "philosophical." Stones were placed very artfully. There were no two identical ones, and from a single perspective it was impossible to see all at a time, only four or five were visible out of many. It took quite a while to find a place from which more stones could be seen.

Try to explain the "philosophy" of such a garden. What did the author use so that the visitor understood him and made his or her own discoveries?

For the presentation, both groups that have been working on the same task come to the front of the class. If time allows, both groups offer full presentations, or else it is possible to establish a sequence of answers: from one, from another—with mutual additions. The conclusion of each group should be very distinct (if there are variants they are to be given as well), and other students may write down the generalization they like best. After all groups are done with their presentations, the students individually write down their general ideas about all kinds of art (for this purpose the teacher offers a new, smaller set of questions).

If there is a lot of material to cover, division into groups occurs beforehand and each group member receives his or her part as a home assignment. In class, the groups discuss the results of homework, choose answers for presentation, and develop the rationale.

In the ninth-grade curriculum, very little time is allocated for acquainting students with William Shakespeare's tragedy *Hamlet*. It is necessary to help students not only to grasp the content, but also to discuss of philosophical issues touched upon in each part of the tragedy and understand the many-sided concept of the author. Here I give all groups the same task, but each group works with a different act of the play.

- Formulate and write down five factual questions about the act.
- Formulate the summary of the act.
- Think of five conceptual questions.
- Choose what you consider the main monologue of the act, give it a title, and provide evidence to support your choice.

Students come to class with the already prepared task and immediately get together in groups. The goal of their teamwork is to compare their notes and to expand and correct them; that is, once again to analyze the content of the act and comprehend all the issues it embraces. Producing a set of factual questions will take the students along the author's narrative logic, and the summary will allow them to "compress" the dialogue. Conceptual questions will determine the basic aspects for the analysis of the act, and the choice of the key monologue will help concentrate attention on the main ideas.

Each member of the group participates in the presentation. One student may summarize the results of the team's work; another may offer an individual interpretation of the text (in this case it is pertinent to let the other students in the group add their thoughts). Different opinions needn't be gathered into a joint conclusion. The main goal is to prove one's point of view. Such a format allows students to achieve depth and diversity in their understanding of the great tragedy, to make first steps in seeking answers to difficult philosophical questions. At the same time, important educational and social skills are formed, and the student does not lose an opportunity for individual development.

One more important aspect in all this is evaluation and assessment. Surely, a joint grade may be given for joint work. But is it always fair? Is the contribution of every student really equal? Probably not. Therefore I often give my students individual grades. A teacher can easily do so if the assessment criteria are developed in advance (see Akhmedova, 2004; Kerimova, 2004). In any case, it is important to structure the work in such a way that every student would become conscious of responsibility and thus determine the reward he or she gets in the end.

We prepare our students for living in a community—in effect, group activity. This skill really should be consciously developed, keeping in mind that everyone is entitled to remain what he or she is—a valuable and unique personality.

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Beverly Falk and Linda Margolin

Awakening the Questions Within:

Inquiry research in an elementary classroom

Children are naturally full of questions. "Why is the sky blue?" "What happens to the sun at night?" "Where do butterflies go in the rain?" They continually and actively inquire and explore. But something happens to these questions as they get older and school begins. The wonder of the questions from their early years is replaced by questions from others, often presented in isolation from their experiences or understanding.

Questions in schools frequently focus on facts that easily fade away with time. "How do you spell _____? "What is the formula for _____?" "What is the definition of _____?" These are the types of questions often found on the standardized tests that dominate classrooms and limit opportunities for children to ask personally meaningful questions. As a result, by the time children enter the fourth or fifth grade their natural inquisitiveness almost seems to disappear. They focus on questions emphasizing "yes" or "no" responses. They seem hesitant to ask questions that lead to deeper thinking.

In real life, however, the pursuit of personally important questions is what leads to new discoveries, creations, or realizations (Arnold, 1995; Gardner, 1998). Many educators have called for schools to serve as better preparation for this reality: John Dewey wrote of the need for education to begin with "learners' passions and questions" (1963, p. 3); Jean Piaget of how education should nurture citizens who are "capable of doing new things, not simply repeating what others have done" (in Greene, 1978, p. 80); Eleanor Duckworth (1987) of how education should be an opportunity for the "having of wonderful ideas"; Paolo Freire (1970) of how education should be instrumental in widening horizons, opening perspectives, discovering possibilities, and overcoming obstacles.

In the midst of the unprecedented changes and complexities of our 21st century life, now, more than ever, we need schools to produce avid and thoughtful questioners. We need teaching to be reconfigured to help students tap into their own questions, generate new ideas, pursue answers, and put their knowledge to use. To do this, we must find ways to reawaken and sustain the excitement of learning that is so prevalent in the early childhood years.

Background

What follows is an account of a curriculum designed around the pursuit of children's questions. It was developed by Linda, a veteran educator, who, at the time of this study, was teaching fourth grade in a New York City public school. Her class of 27 consisted of children from different backgrounds with varying abilities, interests, and strengths. The curriculum was documented by Beverly, a teacher–educator from a local university. Beverly was supervising student teachers in Linda's classroom when she was impressed by a part of the classroom day that Linda and the children called "research time": a time when students worked independently, generating questions of interest to each child and investigating them in a variety of ways. Beverly was intrigued by how the 9-year-old children in the class were using this inquiry process to help them acquire new knowledge and skills.

We (Beverly and Linda) both saw the potential of this work to nurture powerful learning. So we decided that Beverly would document a "cycle" of research in Linda's classroom. We agreed to look at the process and then write about it together. We suspected we had something important to add to the growing body of literature about how to utilize children's questions for learning.

Conceptual framework

The teaching approach Linda used in her classroom is grounded in particular understandings about how children learn: That children are motivated to learn what is of interest to them (Carini, 1987; Dewey, 1963; Eisner, 1991; Kilpatrick, 1925); that they construct understandings about the world by actively engaging with a variety of experiences and relationships; that skill and fact learning are best acquired in meaningful contexts (Bruner, 1960; Piaget & Inhelder, 1969; Vygotsky, 1978); that learners have different strengths and "intelligences" that call on teachers to make available different pathways to knowledge (Gardner, 1983); and that the potential for an individual's growth and development is limited only by the expectations of teachers and the opportunities for learning provided to him or her (Resnick, 1987).

These understandings about how children learn led to the development of the inquiry curriculum we describe in this article. Like Short, Harste, and Burke (1996), we see inquiry as "not a skill children should learn, but a framework for education" (p. 48). In our view the purpose of inquiry is not to transmit knowledge from expert to novice in a uniform way (Burke & Crafton, 1994; Freire, 1970), but, rather, to have learners assume an active role in determining and exploring their own questions; to help learners cultivate the critical thinking and learning processes they will need in their lives (Weber, 1991). We see inquiry as incongruous with mandated curricula, texts, or plans; we believe it is more than teaching students how to search for answers to predetermined questions; and it is different, too, from teacher–designed, interdisciplinary units of study, even if they are active and project based (Eisner, 1994; Gardner, 1983; Harste, 1994; Whitin & Whitin, 1996). The distinguishing characteristic of inquiry is that it is driven by learners' own questions. It is a way to help learners explore their world through a variety of lenses, make changes and adjustments to their thinking, experiment with tools in their environment, and invent new problems, tools, and ideas (Pataray-Ching & Roberson, 2002).

Developing a curriculum around children's questions

To nurture inquiry skills in her students, Linda developed a curriculum based on children's questions. She adapted it for her elementary students from the "I-Search" process, originally designed for students in high school and college (Macrorie, 1988). The process consists of the following steps (see Figure 1):

- Choose a topic about which you are interested
- Frame a question and a set of related questions around it
- Investigate your questions through a variety of resources and experiences
- Write about what you discovered
- Construct a project about what you learned using a different modality
- Share your work with the class

Initially Linda used this process for students' independent work within the context of group studies on a particular subject, often mandated by the district or state. After experiencing it several times, however, she noticed how excited children were to pursue a topic that was truly of interest to them. So she tried setting aside times during the school year when the children could choose any question they wanted to pursue, regardless of how it related to the curriculum. Each cycle of research lasted six to eight weeks, with "research time" taking place at least three times a week for approximately 45 minutes to one hour. Her challenge was to find time to do this, weave in needed skill work, make sure that she was addressing the mandated curriculum and standards, create a way for individuals to share their knowledge with the group, and generally make it all come together coherently. Linda elaborates:

Figure 1 **Inquiry research process**

Each section of this process overlaps with the other.
Throughout, reflections from the students (see earlier questions) can be elicited to guide the content of group meetings and minilessons.

I have always believed that children are deeply involved in learning new information when it is presented in ways that actively engage them in the process. As a teacher I feel it is my responsibility to find different ways to listen to my students' voices. It is easy to lose sight of the richness children bring to a curriculum and impose my own restraints on the students. However, when I began this work I was ready to let my students lead me to unexpected places. I wanted to create a learning environment where children's ideas and interests could be included in the curriculum. I wanted students to become independent thinkers who questioned, distinguished, formulated and made known what they were thinking using various modalities of expression that appeared to work for them.

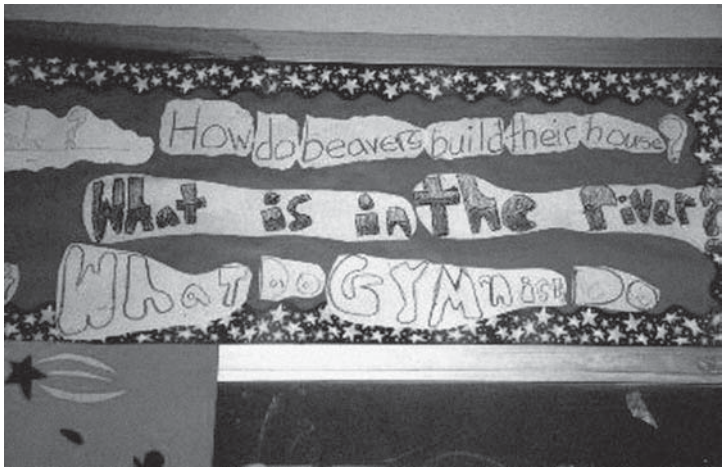

Figure 2. Children's questions

Choosing a topic

Linda introduced the research curriculum by inviting the children to make a list of things they were interested in or wanted to know more about. "Choose one topic you want to explore," she said, "then write about why you chose this topic, what you already know about it, and what else you would like to learn about it" (adapted from the New York City Writing Project, 1982). She then provided time for the children to work independently on selecting a topic. For some students this was not easy. Linda explains: "I needed to help them identify areas of interest. However, I noticed that most had their own ideas about what subjects they wanted to explore."

Many children quickly began working—some alone, some in pairs—to generate lists of interesting topics. They stayed focused throughout the work time until Linda asked them to share what they had chosen. Among the selected topics were the sun, Egypt, buildings, B.B. King (a famous African-American blues musician), homelessness, the desert, clouds, and Rosa Parks (an important figure in the U.S. civil rights movement).

Linda collected the children's topics, read them over, and wrote comments to each child. "To make this curriculum work," she said, "I needed to know what they were curious about, what mattered to them, and what they wanted to learn."

Framing the question

In the following days, Linda worked with the children to turn their topics into researchable questions. Some students had difficulty understanding how to do this. They needed help learning how to distinguish factual from interpretive questions, and distinguishing questions that would yield one-word answers from questions that would lead to other significant questions. Many did not know how to explore the unfamiliar, or how to delve deeply into a subject.

To address this issue Linda called the class together to talk about how to frame a question. By the end of the discussion, the children were clearer about how different ways of framing questions would produce different kinds of answers. Their assignment for the next day was to settle on a question, write it on a paper strip, and post it on the classroom wall.

A few days later the walls of Linda's classroom were plastered with colorful strips of paper containing the children's questions: Why is the sun hot? Why are [some] people homeless? Why do buildings stand up? Why did Rosa Parks sit in the front of the bus? (See Figure 2.)

Next, Linda helped the children "unpack" their questions by creating subquestions that would help them further define and investigate their topics. As they set about to write these subquestions, some worked independently; some needed help. Victor, for example, asked Linda, "Do I have to do the little questions first or can I look for information first?" "Either way," Linda responded, calling attention to the whole class so that they could hear her response. "It is hard to write questions if you don't have any knowledge about your topic. You may not know what to ask. If this is true for you, you can begin looking for information first and then

proceed to write your subquestions. It doesn't really matter what comes first, your question or your learning. One comes from the other, the order doesn't matter: question, learn, question, learn, question."

Investigating

During the next research period, the children were introduced to resources they could use to carry out their inquiries. Because Linda thought it was important for everyone to know how to do book research, each student was required to consult at least two published texts. To do this, she made sure that class time was allocated to browse through books, first for questions and ideas to clarify the focus of the research, and later to access specific information to extend their investigations. The children used books from the class and school libraries, as well as books they brought in from home.

The class also learned how different questions are best answered by using different resources. Everyone was encouraged to utilize a wide range of sources. They generated a list that included newspapers, magazines, the Internet, observation, experiments, travel, TV, interviews, and trips. Linda reminded the children that, in addition to the resources on the lists, *they* could be resources to each other. "You can ask someone in class to help you with your questions," she said. Taking that cue, Jessica said to Akeem, "I have a book for you. My mom gave me a book on mummies."

Other children offered suggestions at this meeting too. For example, Selena was advised to go to the Schomberg Library, a center for African American literature and culture, to conduct her study of Rosa Parks. For her study of buildings, the group recommended that Candice tour some of New York City's famous buildings. For his research on Egypt, Akeem was encouraged to go to the Metropolitan Museum of Art. Eleanora announced she would take a walk in the neighborhood to observe and find out about homeless people. Sonia decided to go to the planetarium to acquire information about the sun.

The following work time, the children picked up on their work where they had left off. Everyone was at a different stage of the process. Linda reflects on the teaching challenges of this way of working:

> *Individualizing learning in this way seems at first to require more time on the teacher's part. However, what it really requires is to be flexible, to be an observer and facilitator, and to provide a rich variety of resources. As I got used to working in this way, I even found that I had more time to spend with individual students in my class.*

Keeping track of children's progress

Most teachers are familiar with how some children—the reluctant learner, the slow starter, the one who needs extra guidance and support—get lost in the midst of independent activities. Linda wanted to be on top of what everyone was doing and to know what help each student needed. To do this she frequently reviewed the children's work, recording the knowledge and skills they were developing. At the end of each work session, students were asked to write about what they had worked on and to answer the following questions:

> While working, what did you notice about what you were doing?
>
> What problems did you have? Or where did you get stuck?
>
> What else do you want me to know about your work?

Sifting through the reflection sheets gave Linda insight into what the students were working on, the problems they were having, and what they needed to do next. The children's responses often led to additional whole-class or individual minilessons on particular skills. Sometimes the responses, like the one that follows, simply showed how children felt about themselves as learners: "I noticed that it was a lot of work trying to find my big question. But I noticed that I actually LIKED working."

Building knowledge; developing skills

Observing students and listening to them guided Linda's teaching. She explains:

> *I used the children's feedback to tell me what they already knew, what they were curious about, and what they wanted to learn. I also used it to learn more about their skills—what they could do and what I needed to teach them. Sometimes everyone was having a problem with finding information, extrapolat-*

ing ideas, or putting things into their own words. Then I created minilessons to address these issues. Other times, where the problem was individual, I responded only to that child. But what was consistent was that I used the children and their work to guide everything that I did.

For example, from Linda's observations of the children at work and from conversations she had with them, Linda ascertained that they needed help finding information in texts. She held minilessons to review how to use tables of contents, indexes, glossaries, and bibliographies. Her record-keeping also called attention to the fact that many children needed guidance on how to better understand what they were reading. So she taught them how to highlight and how to take notes. Together they read the same passage, highlighting important information. Next they discussed what they understood and why they highlighted some ideas rather than others. In addition, the conversation focused on how to distinguish point of view from fact and how to interpret information. By the end of this exercise everyone was better able to understand and retain what had been read.

Together with the children in my class, I made available a course of study that emphasized students' views and ideas while learning necessary skills. I am convinced that their reading and writing skills were developing because they were being encouraged to use them in meaningful ways.

Writing about findings

When sufficient information had been collected, the class spent time writing and revising final reports. Each report included a list of questions, an introduction, the written findings (including pictures and drawings if the children chose), a conclusion, and a bibliography. As they wrote, they continually revised their work, addressing such issues as how to put information from books into one's own words, how to organize ideas, how to eliminate repetitive thoughts, how to elaborate ideas, and how to use varied and interesting language. The writing process concluded with individual and peer editing, followed by a final conference with Linda.

Figure 3. Completed projects

Constructing projects

While writing their papers, the children simultaneously worked on projects that demonstrated some aspect of the topic they were investigating. For these projects they used a range of modalities—art, music, drama, and other types of presentations. For example, the study of bridges was accompanied by a suspension bridge built out of tongue depressors and cord; the study of B.B. King featured a music mix of the artist's work; the study of gymnastics incorporated a gymnastic demonstration; and the study of the sun included a model of the solar system.

Sharing the learning

Completed reports and projects were put on display in the classroom (see Figure 3). A presentation of the written report, accompanied by the project, was the culminating event of the process. While reporting on her study of Rosa Parks, for example, Selena utilized a construction of a bus she had made showing Rosa sitting in the front seat.

Each presentation was followed by a discussion that was guided by a protocol the class had developed to ensure they would be able to listen carefully, process what they heard, and ask useful questions:

Does the question make sense?

Has somebody else already asked this question?

Why are you asking this question?

Pay attention to what has been said.

Think about what it is you want to ask.

Postpresentation conversations revealed what the children understood, the connections they were making, or any misunderstandings they had. In the Rosa Parks discussion, for example, some of the children were confused about the chronology between slavery and the civil rights movement, a common phenomenon among young children. Only by hearing their questions and comments could Linda know that she needed to use a timeline to explain the history of these events.

Other questions students raised provided still more opportunities for clarifying understandings. When Sonia asked, "If Rosa got arrested, how did she win?" a discussion followed on what boycotts are and how they work. Delia asked, "Isn't Rosa Parks like Martin Luther King?" Orlando answered, "She fought for her rights and the rights of her people just like Martin Luther King did." Another voice volunteered: "Is it true that before the civil rights movement black people had to use separate water fountains, bathrooms, and restaurants?" Another student answered, "Yes, they even had to go to separate schools."

Selena's presentation and the discussion that followed provided the children with important information, inspired deep thinking, and gave them an opportunity to express their feelings and points of view.

Reflecting on learning

We learned many things from the process of documenting and reflecting on the inquiry research in Linda's classroom.

Inquiry motivates learning

We noticed a dramatic change in the class's attitude: Students became motivated to pursue their own learning. We were particularly struck by this change one morning, when Beverly arrived. At this signal that their research time was about to begin, the class began to cheer and clap. We couldn't believe how excited and eager they were to work on their research! We hypothesize that this occurred because the children were doing their *own* work, not someone else's.

Inquiry builds on children's strengths

We also noted that differences in ability no longer loomed as large as when everyone worked on the same topic in the same way. Linda explains:

> *As I listened to children sharing ideas and questions with each other, and as I watched them figuring things out, interweaving subjects, and learning from each other through their interests, I noticed that their academic differences were no longer visible. I found them going far beyond what either they or I had previously thought was possible.*

The opportunity to pursue their own work in their own way enabled the children to tap into their strengths and excel at what they were doing. They became experts in their own areas of interest and were able to share their expertise with each other.

Being allowed to work at their own pace and difficulty level, as well as to express their own unique ways of seeing the world, gave the children new confidence as learners and thinkers, most dramatically for those who were insecure about their abilities. They began to try things they had not previously been successful at or were reluctant to do in other contexts. In addition, the more adept the children became at formulating substantive questions, the more evident their capacity to think became.

Discipline problems also seemed to fade away. At the beginning of the school year Linda described her class as one of the most difficult she had ever had. It was hard for them to become interested in anything, to sustain their work, and to get along with one another. Pursuing their own interests seemed to change the culture of the classroom. They became focused and confident in working on their own. They had space to breathe. They weren't competing with one another. Camaraderie grew. It was now "cool" in this class to be a learner.

Inquiry nurtures community and authentic learning

Although the children studied different topics, they shared information and helped each other find resources and learn new skills. It was fascinating to observe the sense of community that evolved through their work.

Linda nurtured this growing community atmosphere by interspersing group work with individual activities. As a result, students not only became active learners in the context of their own inquiries, but were also challenged to

make connections between their individual studies and their classmates'. This is very different from what happens with traditional curricula where everyone is given the same information to process in the same way. In traditional studies, the sense–making and connections have already been done by the writers of the curriculum before being given to the students to "learn." In contrast, the inquiry research approach challenges students to construct and synthesize their own understandings as an integral part of doing the curriculum.

Balancing tensions between school/district mandates and children's interests

It is hard to follow children's interests through inquiry in today's high-stakes testing environment. In order to meet mandates and prepare for tests, some teachers simply follow prescribed curricula. But Linda managed the tension between what she believed was best for children's learning and the requirements of her district and state by prepping for tests minimally but efficiently and by incorporating required skills and knowledge into the lessons she conducted for the inquiry curriculum. Where such connections could not be made, she balanced individual studies with whole-group studies on themes that explicitly addressed the standards. Even within the prescribed content of the group studies, however, she always tried to offer choices for individual children, persisting in providing relevant opportunities for her students to learn about the world in authentic ways. The rewards were incalculable. She explains,

> *I remember feeling terribly pressured about how I was going to prepare them for the tests. I was tempted to follow a workbook curriculum that would focus on developing their skills for the tests. If I had done that, I don't think they ever would have had the occasion to explore their questions or to express themselves in the ways that they did. I'm very glad I didn't succumb to that urge because their work represents some of the strongest efforts I have ever seen.*

Elements of teaching to support inquiry learning

From this close look at Linda's interactions with her students, we have been able to identify various elements of teaching that support inquiry learning. We share them below to conclude:

Be a learner right alongside your students

One insight we take away from this project is that we, as teachers, do not need to know all the answers to every question our students have, nor do we need to be the source of all learning. Rather, when we guide students and model being a learner alongside them, the children themselves are enabled to step forward to support and learn from each other. This allows a learning community to evolve, with an enthusiasm that can be contagious and inspiring.

Provide ample resources for learning

This study has strengthened our conviction that it is critical to bring varied resources into the classroom and to offer children the opportunity to utilize many learning modalities. Children learn best when the curriculum follows their interests and allows them to learn in different ways. They best express their learning when they are allowed to demonstrate what they know in a variety of ways.

Continually assess what students can do

We have also learned that for curriculum to be built around children's questions, ongoing assessment must be integral to teaching. It is necessary to continuously interact with students' learning through regular collections of work, frequent gathering of written response sheets, minilessons, and close attention to comments and questions raised individually and in class meetings. This information is a guide for what the teacher can do next to support learning.

Ask lots of questions; reflect back what you hear

Building curriculum around students' questions requires teachers to be careful observers who mirror to students what they think and understand. Teachers also need to be facilitators who ask probing questions that scaffold learning.

Weave required skills and standards into inquiry experiences

Utilizing inquiry experiences to help students acquire mandated skills and content can turn curriculum planning on its head. Required information and skills can be embedded in the pursuit of students' own questions. Mandated literacy blocks can use readings related to chil-

dren's inquiries. Minilessons, for individuals or groups, can address identified skills as the need arises. When it is not possible to teach all required content in this way, group inquiries can be designed that make sure that the standards are met while simultaneously providing individuals with opportunities to investigate their own areas of interest.

Provide lots of time to let learning happen

Most importantly, we have come to understand that, although it may be difficult for students to learn how to develop their own ideas, it is important to be patient and to give children time. Curiosity is a natural part of each of us. It takes time and hard work to relearn what once was a natural phenomenon. "If I could give one piece of advice," Linda said, "I would say don't give up if at first it doesn't work." Try to become comfortable at letting children learn (Carini, 1987), allowing children to take charge of their own learning while encouraging them to think independently. Be resourceful when using imposed curricula by embracing the messy and sometimes unplanned occurrences that accompany creativity, self-expression, and the quest for understanding.

It takes time for children to awaken the questions within, time to become comfortable asking questions, and time to learn that they can find answers to their questions. When the children in Linda's class were given this gift, we witnessed their excitement in setting their own purposes for learning, their pleasure in pursuing their interests, and their delight in taking charge of their learning. This was truly exhilarating. It was matched only by the joy we felt in being a part of the process.

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Critical Thinking and Critical Literacy

In the early days of the Reading and Writing for Critical Thinking project (RWCT) in various countries around the world, confusion sometimes arose when English speakers used the word *critical*. In many other languages that word does not have the meanings of *discerning, reflective, analytical,* or *focused* as it can in English; were it not for the vigilance of our translators, many RWCT participants would have left the sessions wondering why we were so excited about *attacking*, *undermining,* or *humiliating someone* when we spoke of critical thinking. There is another movement in educational circles that also has the word *critical* in its title. *Critical literacy* is an increasingly influential movement whose practices will be welcomed by advocates of critical thinking. The origins and aims of the two movements are different, however, so an exercise in disambiguation may be in order.

I was a founder and codirector of the Reading and Writing for Critical Thinking Project and author of many of its materials. In this role I, along with many others, was responsible for interpreting concepts and practices of critical thinking to a large number of teachers—perhaps as many as 50,000 of them in 30 countries. I also served (along with Allan Luke, Jerry Harste, David Pearson, Pat Smith, Jeannie Steele, and others) on the Joint Task Force on Critical Literacy of the International Reading Association and the National Council of Teachers of English. Thus it has been my lot to ponder both critical thinking and critical literacy. I am enthusiastic about both movements.

Certainly the critical literacy movement contains many dimensions that critical thinking advocates can find useful, yet the critical thinking movement promotes many practices and principles that should be maintained, even as we entertain new practices. This article explores what critical literacy is and where it came from. Although its proponents don't want to see it too tightly defined, or see its approaches reduced to a methodology, this article also gives one example of how critical literacy can look in practice.

Paolo Freire and the beginnings of critical literacy

Critical literacy is usually traced to Paolo Freire, the Brazilian lawyer turned educator. Freire developed a revolutionary pedagogy that shared reading and writing with the illiterate peasants who were crowding into the *favelas*, the ramshackle slums thrown up on the garbage dumps around São Paolo. His approach began with Socratic conversations, to develop his students' power to use language as an aid to thinking. Only when they could name their problems did Freire take his students a step beyond spoken language toward the written word. Careful to approach the students as equals, Freire used pictures to remind them of a problem in their lives, and through dialogue he led them to examine causes and effects and possibilities for action. The written word was then introduced to anchor the students' insights. They wrote words for ideas that aroused powerful feelings, and then later as they read their words

they could return to those insights, debate them, and create further insights. In this dialectical manner, Freire's pedagogy served to raise his students' consciousness, a process he called by the Portuguese name *conscientizaçao* (Freire, 1970).

Freire was aware, of course, that it is possible to teach without raising consciousness. His urban peasants, fresh from the countryside, thought in patterns that he called *magical consciousness* (Freire, 1974). Although they were often victims of oppression—they may have been forced off the land, and once in the city they suffered from grinding poverty—they saw themselves as part of nature, if they regarded themselves at all, and they recognized neither the sources of their distress nor the possibility of acting to change their circumstances. Traditional teaching would not help them much. It would not help them find root causes and possibilities for change, but instead would fill their heads with other people's static ideas. Freire called the effects of this traditional kind of teaching *massification*. Massified students, he said, have the illusion of being educated, of being free, of being able to understand and control their circumstances. But they are not actually much more conscious or analytical than their illiterate counterparts. Only those whose critical faculties have been nurtured, through dialogue about the issues that matter in their lives, develop critical consciousness.

Freire's observations of the differences between magical consciousness and critical consciousness sound like political constructs. But they are supported at least in part by the findings of the Soviet psychologist, A.R. Luria (1982). Luria visited villages in rural Uzbekistan in the 1930s and asked a series of interesting but innocuous-sounding questions that explored the villagers' ways of thinking and communicating: how they used words to name things, their ability to reason with syllogisms, their self-reflectiveness, and even their ability to ask questions about ideas that were foreign to them. Luria's illiterate subjects' thinking resembled the magical consciousness Freire spoke of. But adults who had been taught to read in adult education classes gave responses that were less embedded in their own circumstances, and they seemed better able to engage with the world at large—not critical consciousness, by any means, but further in that direction than those who had not been schooled into literacy.

Freire's pedagogy has traveled far beyond the slums of Brazil. At my own school, Hobart and William Smith Colleges in the United States, Freirean dialogues are popular with many faculty members who agree that traditional teacher-centered instruction does not teach students to think for themselves. Many of us share Freire's belief that the first goal of education is to empower students to become questioning and analytical. Although our students are not destitute, they are nevertheless subjected to insidious corporate-constructed images of gender, consumption, and class prejudices. Methods worked out by Freire for use with the poorest of the poor can be effective with our students, too.

From the 1960s into the 1980s, Freire's work formed the basis for the revolutionary educational systems of Guinea Bissau in Africa; El Salvador, Nicaragua, and Haiti in Latin America; and elsewhere. By the mid 1980s, though, those educational regimes were being replaced by more conservative ones, and Freire's revolutionary pedagogy was abandoned. (An example of this process: On a visit to Cuba in the late 1980s, I asked the deputy minister of education if her government had considered Freire's ideas. She said that they had brought Freire to Cuba a few years back—but that now that the Cuban Revolution had been won, they had no further use for him!)

Critical literacy in Australia

The country where Freire's ideas have found the most fertile soil in recent years is Australia. The Australians have led the world in a movement now called *critical literacy*. Critical literacy is not quite the same as critical thinking. Whereas critical thinking focuses on claims and their support, on interpretations and applications, critical literacy has a more

skeptical slant, and something of a political orientation.

Critical thinking starts from the assumption that we are often governed by our prejudices, and that language could free us if only we could use it clearly and rationally. What we read and hear often needs to be analyzed and interpreted, and what we speak and write may need to be reworked so that we can make clear claims that are logically supported by evidence.

Critical literacy, in contrast, starts from the premise that in every use of language some context occurs that includes power relationships. Thus language is a form of politics. All texts (including texts in popular culture, such as scripts for movies, television shows, and advertisements) are written for a purpose. Because the writer's purposes are seldom transparent, readers need to develop and exercise their critical faculties in order to filter what they understand and believe from texts. We are constantly assaulted by language that is not merely unclear, but often deliberately deceptive and manipulative. Students need to acquire tools for unmasking the true purposes of language in a particular context, so they can both understand its true meaning and, if necessary, free themselves from its pernicious effects.

Proponents of critical literacy contend that their practices are suitable not just for college-level philosophy classes, but for all readers, even at lower levels. As Allan Luke argues (Luke, 1994), the coming of the Internet has exposed students who are just old enough to click a mouse to whatever arguments anyone with access to a computer wishes to aim at them. Thus a student researching the Holocaust online will find nearly as many articles claiming that nothing of the sort ever happened as articles describing what did happen (Allington, 2000).

Luke and Freebody's "Four Resources" model of critical literacy

Critical literacy advocates Allan Luke and Peter Freebody developed a four-part paradigm for reading that encourages different levels of critical literacy, as shown in Figure 1.

Figure 1

Luke and Freebody's model of critical reading

Coding practices: developing resources as a code breaker: How do I crack this text? What are its patterns and conventions? How do the sounds and marks relate, singly and in combination?	**Pragmatic practices: developing resources as a text user:** How do the uses of this text shape its composition? What do I do with this text, here and now? What will others do with it? What are my options and alternatives?
Text-meaning practices: developing resources as a text participant. How do the ideas presented in the text string together? What cultural resources can be brought to bear on the text? What are the cultural meanings and possible readings that can be constructed for this text?	**Critical practices:** What kind of person, with what interests and values, could both read and write this naïvely and unproblematically? What is this text trying to do to me? In whose interests? Which positions, voices, and interests are at play? Which are silent or absent?

(From Luke, 2000).

Luke and Freebody's model can be used with any sort of text: essays, opinion columns in the newspaper, government documents, political speeches, and advertisements. In fact, critical literacy advocates commonly recommend that teachers bring into the curriculum and scrutinize items from popular culture, and not limit classroom texts to canonical works.

I teach an undergraduate class called "Literacy" for juniors and seniors at Hobart and William Smith Colleges in upstate New York, in the United States. When we were discussing critical literacy in a recent class, my students applied Luke and Freebody's four resources model to an advertisement we found in the *New York Times Sunday Magazine*, a publication aimed at middle-aged, financially secure adults. The full-page advertisement consisted of a photograph of a woman's hands opening an engraved invitation to a 25th college reunion. On the table behind the invitation were a silver ash tray and an expensive vase of cut flowers. The text across the bottom of the

page read, "Don't you think it's time?" and below that, in fine print, was the name of the sponsor of the advertisement, Botox. (For those who don't know, this is a strong medicine—actually a poison—that is injected into the muscles of the face to counteract the normal effects of aging.)

Looking at the text through the lens of the four resources model, my students' discussion ran as follows.

Coding practices

In response to the questions, "How do I crack this text? What are its patterns and conventions?" the students agreed that the patterns and conventions were those of an advertisement.

At this point, I gave a minilecture. I suggested that the "grammar" of advertisements usually includes a scenario meant to reflect back the reader's own image, but in a distorted way that highlights some problem or shortcoming in the reader's life. Then the advertisement suggests that the shortcoming can be remedied by consuming the product being advertised. (This is often untrue, of course. Buying an expensive car does not make a person successful, nor does smoking a certain brand of cigarette make a person popular, or drinking a certain brand of beer improve athletic abilities.)

Now the students examined the text to determine (1) whose image was being reflected, (2) what shortcomings were being suggested, and (3) what solutions were being offered by the text. It was pretty obvious that the text was aimed at an early middle-aged woman, who was told that she should be unhappy because she was showing signs of aging, and that she should consume this product, Botox, to erase those signs and be happy again.

Text-meaning practices

In response to Luke and Freebody's questions, "What cultural resources can be brought to bear on the text? What are the cultural meanings and possible readings that can be constructed for this text?" one student suggested that you had to understand that in the United States, and probably in other places, schools and colleges hold reunions. These reunions can be enjoyable because people reconnect with classmates who have not seen one another in many years. But the reunions may also be a source of tension and anxiety if the participants fear the implicit stock-taking that may go on.

Second, the students recognized that women worry about their appearance as they approach middle age. Third, some of the students were aware that Botox is a radical form of treatment for the normal signs of aging, in which poisons are injected into the face to paralyze the muscles associated with wrinkles.

So they agreed that a possible reading of the text runs something like, "Hey: maybe you're about to go to a college reunion and see people who knew you when you were younger. But you're getting older. See? The skin on your face is wrinkled. That should worry you. You've been denying it up to now, but you've reached the time of life in which you'd better start taking some serious measures to cover up the effects of aging on your body. Otherwise, you will be compared to other women who have already been using these anti-aging techniques, and next to them, you will look old and ugly. You will be miserable every time you find yourself in the company of acquaintances from your past."

Pragmatic practices

In response to the questions, "What do I do with this text, here and now? What will others do with it? What are my options and alternatives?" my students took an odd stance, since nearly all were in their late teens or early 20s. They did not feel directly threatened by the advertisement, as an older reader might, although they were well aware of the incessant drumbeat of advertising intended to make women feel insecure about their bodies. But they still expressed anger at the thought that a drug company would deliberately sow anxiety among women in order to sell its products.

One of the students had a part-time job working for the alumni office of our college, and her job was to help arrange reunions. She told us how vigorously and creatively the staff labors to make reunions joyful events, and how frustrated it made her to think that some alumnae might be kept away—or worse, resort

to injecting poison into their faces!—because of anxiety over their appearance.

Nearly all of the students made it clear that their choice was to reject the message of the advertisement and to feel outrage toward commercial interests that magnify people's fears about their bodies and exploit those fears for profit. But not all students responded this way. A couple of students thought the majority were going too far. "It's just an advertisement," one said. "Take it or leave it."

Critical practices

In response to Luke and Freebody's question, "What kind of person, with what interests and values, could both read and write this naïvely and unproblematically?" the students agreed that a middle-aged woman who had not been taught to read critically might be made to suffer anxiety from reading this text. But gradually the students began to worry, too, about the morals of the kind of person who could *write* advertising copy like this. This concern hit close to home, because a good many of these students planned careers in business, some of them perhaps in advertising. Is it possible to succeed in a business career without victimizing the public, as the creators of this advertisement had done?

The interests behind the advertisement were clear enough, and in a short time the students were able to enumerate the voices that were not heard here: voices that would emphasize that relationships go beyond appearance, and those that would protest the tendency in our society to emphasize people's surface features as opposed to their personalities, capabilities, and values.

At the conclusion of this 45-minute discussion, one student remarked, "That was amazing. We see advertisements like these all the time, but we just glance at them and turn the page. After what we just talked about, I wonder how much of the advertisement's message was getting through to us, even in the brief time we looked at it?"

Critical literacy in the curriculum

In Australia, especially in Queensland province, where Allan Luke was until recently a consultant in the ministry of education, the language curriculum has been modified to promote critical literacy. This movement has had two main aspects. First, as recommended above, the curriculum for language and literature study now includes not just canonical works, but also everyday artifacts from popular culture. One unit of study in high schools, for example, focuses on Mother's Day—an observance that, in Anglophone countries, anyway, has been turned into a commercial feeding frenzy. Advertisers bombard children and spouses with reminders to buy things for the mothers in their lives. Thus this holiday is a fair target for critical inquiry. Students are encouraged to look carefully at advertisements and bring to light the ways that people's affection for their mothers or wives has been subverted into an occasion to improve merchants' balance sheets: Consumers are urged to buy commercial products women don't need, and motherhood itself is being shaped by commercial interests.

Second, language study in Queensland has shifted from its traditional focus on grammatical correctness toward the *uses* of language—in other words, toward pragmatics and sociolinguistics. Instead of diagramming sentences or policing subject and verb agreements, language study as framed by critical literacy incorporates the work of linguists like M.A.K. Halliday (Halliday & Matthiessen, 2004) who explore, for instance, how the use of the passive voice can be used to hide responsibility for an action.

Language study also foregrounds work in discourse analysis by James Paul Gee and others. Gee (1999, 2000, 2001) argues that all uses of language occur in a social setting. Discourses—forms of language that are used in social situations—always involve a *who* and a *what*. The *who* refers to the socially recognized role people are playing at the time they use language. The *what* refers to the thing they are trying to accomplish when they use language. In any setting, speakers and listeners use a *discourse*, a form of language constrained by the boundaries of our shared understandings of the roles we are playing and the goals we are trying to accomplish. By studying discourses, students not only become aware of ways to use language in different situations—and even learn to "do

school" (Vogt, 2000)— but they also come to understand how particular uses of language reinforce certain social roles and relationships.

Conclusion

Proponents of critical literacy passionately believe that the study of the practical, even political, uses of language should be brought into the school curriculum. These new focuses include sensitivity toward both the grammar of obfuscation and the rules that govern language and its users in social settings. Proponents of critical thinking in the classroom will find valuable insights and tools in the critical literacy movement.

On the other hand, critical thinking requires that we state our claims clearly, that we support our claims with reasons—and also that our claims and their support be open to scrutiny and challenge from people who hold different views. Critical thinking means that we carefully entertain arguments with which we are inclined to disagree, that we appraise the quality of their reasons and the logic with which the reasons are marshaled toward a conclusion. When considering arguments with which we disagree, critical thinkers recognize that there might be a motive to manipulate and mislead lurking behind some; but there may also be plain old fuzzy thinking, or premises that haven't been made clear. And even if we do manage to associate a statement with a commercially or politically manipulative intent—or with unenlightened social or political attitudes—making that association does not absolve us from analyzing the argument and, if need be, rebutting it.

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Metacognitive Assessment Strategies

"Assessing student thinking is something I struggle with. First grade students have great ideas but I often struggle with finding ways for them to tell me their thinking, and I am unable to encourage further thinking."

This statement by Ms. Griffin, who has been a first-grade teacher for three years, reflects her frustration with finding ways to assess metacognition and encourage students' thought processes. Metacognition is a powerful tool for understanding reading processes and improving reading comprehension, and can be used by all teachers and in every classroom where reading occurs and comprehension is a component of instructional outcomes (Block & Pressley, 2002; Israel, Block, Kinnucan-Welsch, & Bauserman, 2005). Metacognition is defined as thinking about one's own thinking (Flavell, 1979). This mental awareness helps students develop more effective cognitive strategies for accomplishing tasks, making decisions, and reviewing their own work (Zemelman, Daniels, & Hyde, 1998). Metacognitively skilled readers rely on accurate metacognitive strategies as they read (Rhodes & Shanklin, 1993). When students are asked to review and think about their own work, a metacognitive assessment occurs.

In a subject such as math, teachers can learn about metacognitive thinking processes with relative ease. When a student is doing a math problem such as subtraction with regrouping and forgets to rename tens to ones, it is obvious that a fallacy in thinking is occurring. The point of error is the exact location on the mathematical continuum where intentional instruction can intervene. Translating those analytical skills from thinking about mathematics to thinking about reading should be an important goal of the teacher. Unfortunately, metacognitive reading processes are not as readily visible to teachers as are the metacognitive processes used during mathematics. Understanding what readers are thinking during reading remains a complex task. While miscue analysis of oral reading can provide some insights, a more complete understanding of metacognitive thinking processes is needed before intentional reading instruction can occur.

Metacognitive assessment strategies provide such a lens through which a teacher can better understand reading processes. They also aid in identifying cognitive misunderstandings, and become valuable tools to guide classroom instruction.

The function of this article is threefold. First, we want to provide a framework based on theory for classroom teachers to begin thinking about metacognition and assessment. The ideas presented can be applied in any situation where one of the goals of reading is to improve comprehension. The second purpose is to offer practical approaches to metacognitive assessments that stretch our thinking from theory to practice and can be used to inform instruction and improve students' reading comprehension skills. Last, we focus on how teachers can use metacognitive assessments as instructional tools.

Constructing our thinking about metacognition and assessment

Flavell's (1979) definition of metacognition as thinking about one's own thinking entails conscious attention to the processes of one's thoughts. Flavell's model categorizes cognitive monitoring into metacognitive knowledge and metacognitive experiences. Metacognitive knowledge consists of knowledge or beliefs about the person (self), the task (reading), and the strategy employed. Metacognitive experiences consist of any cognitive or affective experiences that accompany and pertain to any intellectual task, such as reading. Flavell highlights the importance of discovering and building upon the early competencies that can serve as tools for subsequent acquisition of metacognitive strategies, rather than cataloging a child's lack of metacognitive strategies as deficiencies.

Pressley and Afflerbach (1995) compiled and organized a comprehensive list of every conscious process reported in the more than 40 verbal protocols of reading generated through 1995. The studies used in the analysis summarized the conscious processes, which are primarily self-regulated and coordinated, that produce meaning from text. From this analysis, Pressley and Afflerbach constructed a model known as Constructively Responsive Reading. Several major theories contribute to the development of the constructively responsive reading model: Rosenblatt's (1938) *reader response theory,* which addresses the transaction that takes place between the reader, prior knowledge, and the text; Baker and Brown's *metacognitive theory* (1984), which offers a model of text processing based on cognitive psychology; and *schema theory* (Anderson & Pearson, 1984), which highlights the importance of background information the reader brings to the reading process.

Pressley and Afflerbach's (1995) model of reading portrays readers as actively constructing meaning and identifies three types of reading activities:

- **Reading Activity 1: Meaning Construction** Readers construct meaning (comprehension), before, during, and after reading.
- **Reading Activity 2: Monitoring** During text processing readers monitor their reading processes, regulating comprehension and learning.
- **Reading Activity 3: Evaluation and Text Assessment** Readers evaluate their reading, and assess the text based on their prior knowledge.

Exceptionally skilled readers never use only one of the strategies described in this model; rather, they fluidly coordinate a number of strategies to ensure maximum comprehension of the text. As an example, Table 1 summarizes the constructively responsive reading activities utilized by one good reader when reading an excerpt from *To Kill a Mockingbird*.

Understanding the metacognitive strategies used during reading is a complex process. Approaches to assessment that are aligned with these three categories of metacognitive strategies can provide valuable information about reading activities, both efficient and deficient, and aid teachers in providing appropriate instruction. Organizing the constructively responsive reading activities in a table helps point out the reading activities of good readers. Educators can use this reference when assessing complex processes of reading.

Table 1 Constructively responsive reading: A good reader model

READING ACTIVITY	SAMPLE RESPONSE
Meaning Construction	Before I was thinking he wasn't that old and I will tell you later that I start thinking differently of him.
Monitoring	Then he said something important that helped me understand the title of the book. He said that killing a mockingbird is a sin. I read that sentence a lot more carefully than the other sentences. Hey that is probably pretty important.
Evaluation and Text Assessment	At first I thought this isn't such a big deal. But as I kept reading I started to understand what they meant. I was able to comprehend easier as I read more and more. So that is pretty much how I understood the story. I just read it and did my best and tried to figure it out.

Practical metacognitive assessment strategies

Practical approaches to metacognitive assessment strategies are guided by general theory about metacognition and assessment. In the reflective process, the student must think about what he or she has done. Practical metacognitive strategies include reflective metacognitive interviews, the "sentence verification why" technique, metacognitive adaptations of informal reading inventories, and metacognitive visualization.

Reflective Metacognitive Interviews (RMIs)

One of the key strategies for determining metacognitive thinking processes is a reflective metacognitive interview. This strategy was adapted from Rhodes and Shanklin's (1993) version of metacognitive interviews. The purpose of the interview is to help the teacher "see" inside the mind of the student to determine the reasoning behind a student's answers. The teacher wants to know more than whether the answer is right or wrong. He or she wants to know why the student made the error. The reflective metacognitive interview can provide this information. It is reflective because the interview is done after the fact. The procedures are as follows. The student is asked to look back at his or her work and explain out loud how it was done, and why it was done as it was. The example below demonstrates the value and use of the RMI. It is excerpted from an interview conducted by Israel (2002) after the student had read a passage from *To Kill a Mockingbird* (Lee, 1960):

Teacher: Tell me what you were thinking as you read this passage:

> When he gave us our air-rifles Atticus wouldn't teach us to shoot. Uncle Jack instructed us in the rudiments thereof; he said Atticus wasn't interested in guns. Atticus said to Jem one day, "I'd rather you shot at tin cans in the back yard, but I know you'll go after birds."

Student: It said his name was Atticus, and at first I thought it was a name or word. It says a "curse of the Finches," but it took me a little bit to figure it was their last name. It took me a little while to understand that, and I had to reread it. The school buzzed with him about talk with (defending) Tom Robinson. That was kind of random, and I didn't really understand it at first, but then I kind of got that they were making fun of Atticus. "Rudiments thereof" and I don't really know what *rudiments* is so I just kind of skipped that sentence because I have no idea what that word means. (Israel, 2002).

The teacher was able to make some valuable conclusions about the student's comprehension strategy usage on the basis of this interview. This student used rereading as a strategy when he did not understand the passage—when the first reading did not make sense to him. However, when encountering an unknown word (*rudiments*), the student did not have any effective strategies upon which to draw. His strategy was to skip the sentence. This knowledge can enable this teacher to provide intentional instruction at the exact point of need to improve this individual's comprehension. It also enables the teacher to realize that vocabulary strategies would be a valuable lesson focus for this student. Without the knowledge gained from the RMI, the teacher may have misinterpreted this student's instructional needs. In another example of an RMI student report regarding an unknown vocabulary word, the student relies on prior knowledge and context clues.

Student: And it says here that he got started later in life and that he is older than the parents of his schoolmates. Because that is what *contemporaries* means. *Contemporaries* was one of our vocabulary words and it means someone who is current or modern or there with you. I guess that means your classmates. So he is older than his friends' parents, and I don't think that is that big a deal. He is not that old. It says here that he got started late, so that probably means he got married late and had kids. I guess he is older than the other parents. So, that is basically what I figured out about that.

It is important that teachers and students use a common language in metacognitive assessments. Students need to be able to articulate what they are thinking in a way that can be understood by their teachers. Although formulating a common literacy language is good classroom practice, it is even more important in the RMI scenario. When students and teachers use the same language, RMI results are clear. For instance, in the example above, the student said he used rereading as a

strategy when he did not understand the passage. The term *rereading* was in the common language of the student and the teacher so that it was clear what strategy the student employed as he read the passage. He had been taught that rereading was an appropriate strategy to use when his comprehension was not successful, and he had the appropriate language to express himself to his teacher.

In conclusion, as can be seen from these two examples, conducting effective interviews helps teachers understand students' metacognitive abilities. Teachers need to think about going beyond the basic questions: who, what, when, where, why, and how. Bloom's taxonomy of higher order thinking skills can be a useful guide for creating questions that encourage students to think metacognitively about what they have read. For example, the teacher might ask: How did you analyze your conclusions? What steps did you use to evaluate the author's craft? What did you think when you read that passage?

Table 2 **Guide for using Bloom's Taxonomy to increase reading comprehension**

BLOOM'S THINKING LEVELS	SAMPLE QUESTIONS/TASKS
Knowledge	What does (vocab word) mean? (define) Can you describe the setting? Identify the main character(s). Sequence the main events. Tell what happened in the story.
Comprehension	What happened at the end of the story? (conclude) Discuss the role of ___. Interpret the following quote. What will happen next? (predict) Restate the theme in your words. Summarize the story/chapter.
Application	How does the theme apply to you? If you change the setting to modern times, what would it look like? Draw an illustration. Interview one of the characters. Use the theme to write a new story.
Analysis	Why did the character choose to act or react in a certain way? (analyze) Compare and contrast two (e.g., themes, actions, characters) Diagram character relationships. Relate character traits to actions. Why is setting important? (research)
Synthesis	Compose a song related to the theme. Develop a new theory about the ending. Organize a group/club to support the theme. Plan the agenda for a meeting. What would you have done as the main character? (pretend) Rewrite the ending.
Evaluation	Why is the ending effective? (appraise) Evaluate author's work as book review. Justify the main character's decision. Is the ending realistic? Prove it. Rank the characters in order of importance. Rate each one for realism.

Photo: PhotoDisc, Inc.

The Sentence Verification–Why Technique

Sentence verification technique (Royer, 2001) is an assessment strategy that takes each sentence from the original passage and changes it in three key ways to create (1) a paraphrase sentence, (2) a meaning-change sentence, or (3) a distracter sentence (similar in syntactic structure and theme to the original passage but unrelated in meaning to any sentence in the original passage). As a fourth variant, the original version of the sentence can also be included in the assessment. Students read the original passage, then read the four variations described above, which are listed on a separate page, and mark *yes* or *no* to each. Obviously, the original sentence and the paraphrase sentence would have *yes* responses, while the meaning-change sentence and distracter sentence would receive *no* responses. Asking students to tell why they chose their responses turns the assessment into a metacognitive process. The *why* provides much richer data for understanding student thinking and informing future instruction. For example, the sentence from *To Kill a Mockingbird*, "Mockingbirds don't do one thing but make music for us to enjoy," might engender the following paraphrase: "I enjoy listening to mockingbirds because they have such a beautiful sound."

Asking why a student selected *yes* in response to the paraphrase sentence helps the teacher understand the thought processes the student used in interpreting the text. The teacher's role is to keep students on track and see whether a particular interpretation is logically or coherently explained.

Metacognitive Adaptations to Informal Reading Inventories

For years, good teachers have realized the value of using Informal Reading Inventories to gain important assessment information. Many teachers must administer individual informal reading inventories as part of their schoolwide accountability requirements. To conduct a reading inventory, the teacher asks the student to read a passage and answer the accompanying questions. The student's reading levels (independent, instructional, and frustrational) are then computed based on oral reading accuracy, silent reading speed, and competency on comprehension questions (Dewitz & Dewitz, 2003). To use the Informal Reading Inventory as a metacognitive assessment, the teacher needs only to take a few extra minutes to ask students "Why do you think so?" or "Help me understand your thinking by elaborating further." Again, rich

assessment data are available to the teacher, who may thereby uncover problematic patterns of errors or ineffective strategies, such as overdependence on prior knowledge.

Metacognitive Visualization Pictures

Visualization is an important comprehension strategy used by good readers. Visualization is frequently used in primary classrooms, but can also be expanded for use with struggling readers in middle grades. Hibbing and Rankin-Erickson (2003) suggest having struggling readers draw pictures as they read, to aid in their visualization process. This technique becomes metacognitive when teachers question students about the thinking processes behind their drawings. For example, the students might draw pictures based on their mental images of their favorite parts of the text. While reading *To Kill a Mockingbird,* students might draw pictures of mockingbirds singing while children are playing close by. By questioning the students about the images, the teacher can assess their thinking related to comprehension of the text. This helps the teacher link students' metacognitive thinking to their comprehension of the text.

The four strategies explained above demonstrate how traditional assessments can become metacognitive assessments when a few reflective questions that explore student thinking are added. Only through the use of metacognitive assessment strategies are such rich evaluation results possible.

Metacognitive assessments as instructional tools

Two concerns all classroom teachers face are ensuring that assessment techniques are easy to implement and that they are nonthreatening to the students. The authors of this article believe students are more likely to attempt challenging tasks when the evaluation practices used in their classrooms are nonthreatening and the students have a voice in the evaluation process. A metacognitive reflection chart is a way to help students assess their own metacognitive processes.

Metacognitive Reflection Chart

Stemming from the notion of constructively responsive reading (Pressley & Afflerbach, 1995), the Metacognitive Reflection Chart can be used to help students actively construct meaning, monitor their learning, and evaluate and assess the learning process. By employing the chart, the student begins with the construction of meaning, then focuses on clarification of this understanding through interaction with a friend or peer, who helps the student check meaning construction and extend his or her thinking about the text. When students are asked what they *think* about a text, they try to construct meaning by making connections with what they have read or learned to what they already know. When students are asked what they *believe,* they are being asked to monitor their reading based on prior experiences and what they have comprehended or understood about the text.

Alternatively, when students are asked what they *feel* and what they *question* about a text, they are being asked to make an evaluation. Their evaluation sheds light on the pattern of thinking used to generate their previous answers. Using a metacognitive reflective chart helps students organize their metacognitive thoughts regarding a topic or piece of literature. Classroom teachers can use this information to increase metacognitive thinking when reading novels, nonfiction, or when discussing critical issues such as world peace. Table 3 provides a practical framework for metacognitive reflection. It can also be used by the teacher as an assessment tool, to identify interpretations of critical points in the text.

Informal Metacognitive Discussions

These discussions facilitate students' metacognitive thinking and extend their understanding of how to think metacognitively. Informal metacognitive discussions can easily be integrated into classroom discussion practices. For example, teachers can encourage students to think metacognitively in three ways: as they are constructing meaning, in monitoring reading comprehension, and in evaluating information during discussions. Table 4 summarizes a variety of prompts students can use when involved in classroom discussions.

Table 3 **Metacognitive reflection chart Sample topic: Peace in our world**

	THINK	BELIEVE	FEEL	QUESTION
What I…	I think many people are devoted to having a peaceful world.	I believe peace is only possible when everyone works together, especially in our schools and communities. I believe peace needs to start at home.	I feel really sad when parents and children do not get along. I feel there is a lot of injustice in the world. It makes me sad to see homeless children. To me these people are not at peace because they are alone.	How can we have peace in our families and in our schools? Why can't people in politics be at peace?
What We…	We think everyone needs to sign a peace contract, no matter the age or the place.	We believe peace talks should occur daily and weekly. We should build peace gatherings and invite people from all over the world to attend.	We are very worried about peace in our world. We feel if people lived more simply they would live more peacefully.	Can we learn more about how peace contracts work? Can you explain how wars get started if people believe in peace?

Table 4 **Metacognitive discussion prompts**

PURPOSE OF RESPONSES DURING DISCUSSIONS	PROMPTS TO HELP STUDENTS INCREASE METACOGNITION DURING CLASSROOM DISCUSSIONS
To increase meaning and construction of information being discussed	Before I started reading/thinking about ..... information, I remember what I learned about ..... While we were reading/thinking about ..... information, I discovered why/how this information influenced ..... We can use this information when we study ..... or learn about .....
To help monitor understanding of information being discussed	I was confused about ..... When I was unable to determine the meaning of a word, I related this word to ..... This information is important in our discussion about ..... because .....
To help evaluate information being discussed	This makes me feel ..... This information is important because ..... What I liked about .....

In summary, the topic of metacognitive assessments addresses the need for alternative assessment approaches that help increase learning and improve reading comprehension. When students are more metacognitively aware during reading, their comprehension is enhanced because they are consciously monitoring and interacting with their thoughts. Like Flavell, we believe that utilization of metacognitive strategy is both feasible and desirable. We can and must improve students' reading comprehension. Using the kinds of metacognitive assessment strategies described in this article is a positive step toward that improvement.

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IRSCL

The International Research Society for Children's Literature will hold its 17th biennial congress at Trinity College Dublin 13th to 17th August 2005. Proposals are invited for papers and panels exploring the IRSCL 2005 conference theme, "Expectations and Experiences: Children, Childhood and Children's Literature." The conference will focus on various aspects of this theme including childhood and families, childhood and morality, childhood on display and childhood and theory. Proposals must be submitted by 31 January 2005 to Valerie Coghlan, vcoghlan@cice.ie. Additional information can be found at www.irscl.ac.uk

source: University of Pennsylvania CFP listserv (http://cfp.english.upenn.edu/)

Kudlu Chithprabha

Letter to a Teacher by Schoolboys of Barbiana

A forgotten treatise on school education

Most academic courses about education are centered around theories and models produced by academics. It is unfortunate that very few prospective teachers ever get to hear the stories of education written by the best educators of the world—those who have experimented with schooling but do not necessarily have degrees in education. When such stalwarts as Gandhi and Tolstoy are ignored by the academic world, it is no wonder that no one ever hears of a small book written by a group of poor children from a tiny, obscure school in Italy.

Barbiana is a community of about 20 farmhouses in the hills of Tuscany in Italy. Don Lorenzo Milani, a priest assigned to the village, founded the School of Barbiana in the early 1960s, initially intending it as a night school for the working people. He soon realized that the needs of the children on the farms scattered nearby were even more critical. Most of these children had either failed their exams and left school or were bitterly discouraged with the way they were being taught. He gathered about 10 boys, 11- to 13-year-olds, and gave them a full schedule of eight hours' school work, seven days a week. The older children devoted a great deal of their time to teaching or drilling the younger ones. All the students gave many hours to the study and understanding of problems that were directly significant to their own lives, and, in line with such concerns, eight students from the school wrote the *Letter to a Teacher* as a full-year project. It was first published as a book in 1969 and was a best-seller in Italy. It has since been published subsequently in many languages.

Though there are actually eight authors, the book is written in the first person singular. It is symbolically addressed to a public school teacher, though the authors' target audience is parents. The opening sentence of the book reads:

> You won't remember me or my name. You have failed so many of us. You fail us right out into the fields and factories and there you forget us.

The authors then proceed to explain to the teacher their problems with school in simple narrative form. There is no issue relevant to education that these children do not touch. No theory or model can approach this depth of personal experience. No wonder the authors of this book declare,

> I don't think there is a treatise written by any professor that can tell us anything about [our classmate] Gianni that we don't already know.

This is not a book that requires great scholarship to understand. It is most readable, written in simple words and a lucid and personal style. The authors provide simple but striking subtitles for every paragraph or two, such as "The boys from town," "Mathematics and sadism," "Children as teachers," "You can't even speak properly," "Unhappy children," "Only a fraction of equality," "The cocksure teacher," "Unfit for studying," and so forth.

It would be wrong to dismiss the book as an emotional account of a purely subjective experience. The

authors provide an excellent statistical analysis of school failures. In fact, the School of Barbiana received a prize from the Italian Physics Society, a prize usually reserved for promising physicists, for the statistical achievements of the book.

The young authors compile data, perform research, and draw logical inferences. After pointed observations and strong criticism, the children nevertheless end on an objective note, reflecting on the possible limitations of their analysis. They also include information on the workings of their own school and provide comparisons between it and the public school system.

The characters featured in the *Letter* are symbolic of various social categories. The teacher represents the school system; Lucio represents the rural farm boy; Gianni and Sandro are the representative rejects from the public school system; and Pierino, the doctor's son, represents the privileged stratum of society. These examples emerge as powerful images that linger in the reader's mind.

The important themes of the book are outlined below, illustrated by a generous sprinkling of some of the most striking sentences and passages in the book.

Poor children prefer school to cowshed

Contradicting the general impression that poor children are uninterested in school, the authors bring home the truth: *poor children prefer school to home,* because their homes are full of hardship and school can be their only escape. The most poignant illustration of this truth is the anecdote about the pedagogue who visited the Barbiana school and criticized its no-weekly-break policy, citing psychological concerns:

> He was talking without looking at us. A university professor of education doesn't have to look at schoolboys. He knows them by heart, the way we know multiplication tables. When he left, Lucio, who has thirty-six cows at home, said, "school will always be better than cow shit." That sentence can be engraved over the front doors of your schools. Millions of farm boys are ready to subscribe to it. You say that boys hate school and love play. You never asked us peasants.… Six boys out of every 10 in the world feel the same as Lucio. *All your culture is built this way. As if you were the whole world.*

If it is true that children prefer school to a cowshed, then why don't they go to school? It must be that school has been made so difficult for them that they have no choice—they even prefer the cowshed.

The cultural divide

The children understand very well that the school discriminates against their social class and culture. They feel that the system is tailored to the rich, or, in their words, "for people who can get their culture at home and are going to school just in order to collect diplomas."

On the other hand, they also evince a deep respect for their own culture and repeatedly point out the superficiality of the dominant book-oriented culture:

> Every people has its own culture, and no people has less than the others. Our culture is a gift that we bring to you. A vital breath of air to relieve the dryness of your books written by men who have done nothing but read books.
>
> Of course, you see only selected children. And you got your culture from books. And the books were written by men in the Establishment. They are the only ones who can write.

The Barbiana students understand very well that they do badly at exams only because they have not been exposed to the same environment as a child of educated parents. As an illustration, they describe the doctor's son, Pierino:

> Pierino was not born racially different, he became different because of his environment at home, *after school hours*.
>
> You tell us that you fail only the stupid and the lazy. Then you claim that God causes the stupid and the lazy to be born in the houses of the poor.
>
> Even the rich have difficult offspring. But they push them ahead.

At the same time they also realize that these privileged children, when they study for their exams, are not doing so because they are interested in the subject:

> Behind those sheets of paper there is only a desire for personal gain. The diploma means money. Nobody mentions this, but give the bag a good squeeze and that's what comes out.

A system that perpetuates existing inequalities

Speaking about the children who drop out, the authors say,

> One of them has one-eighth equality. He can sign his name. The others have two, three-, four-, or five-eighths of equality. They read after a fashion but cannot understand a newspaper. Not one of them is the son of well-to-do parents. The thing is so clear-cut that we can only smile. Two of the missing never came back to school. They are at work in the fields. In everything we eat now there is a bit of their illiterate sweat.

This inequality is rooted in economic realities:

> "Daddy's boys" constitute 86.5 percent of the university student body; laborers' sons, 13.5 percent. Of those who get a degree, 91.9 percent are young gentlemen and 8.1 percent are from working-class families.
>
> It is a refined system for keeping out the inferior classes without saying it to their face. Pierino, then, will become a professor. He will find a wife much like himself. They will produce another Pierino. More of a Pierino than ever. Thirty thousand such stories every year.

There is a strong sense of resentment toward the social reality that creates such a system:

> The curious thing is that the salaries that go towards throwing us out are paid by us, the rejected. I have been told that the economic textbooks call this system of taxation "painless". Painless means that the rich manage to have the poor pay the taxes without the poor noticing it.
>
> Pierino's mother was helped at home by one of those thirty-one other mothers – the mother of some Gianni who neglected her own son while doing the housework for Pierino's mother.

While school failure is the major culprit in Italy, they point out that the British system merely follows a different route to discrimination, which is true in India as well, and perhaps it is also true in many other countries:

> The English don't fail students in their schools. They divert them towards schools of lower quality. In school, then, the poor perfect the art of speaking badly, while the rich keep polishing their language.

The gender angle, too, does not escape their attention. Not a single girl from the

Photo: PhotoDisc, Inc.

town came to the Barbiana school, in part because of the dangerous road, but also because of their parents' mentality. The authors ascribe this to "a kind of racism" practiced by males who did not like a woman to be intelligent.

School makes children hate books and learning

The *Letter's* authors are aware that the Pierinos of the school study only to pass exams, and in the process they lose their interest in learning:

> Day in and day out they study for marks, for reports and diplomas. Meanwhile they lose interest in all the fine things they are studying. Languages, sciences, history – everything becomes purely pass marks.

The School of Barbiana had a tough time with Sandro and Gianni, who had come to the school after being thrown out of the public schools. These two boys had developed an antilearning attitude and a hatred for books, thanks to their exposure to mainstream schooling. They liked to have fun and goof off, and they felt school was a punishment:

> They had never heard that one goes to school to learn, and that to go is a privilege. They saw the teacher as the one who was to be cheated. It took them one hell of a time to believe that there was no mark book.

The children ask the hypothetical teacher:

> For whose sake are you doing it? What do you gain by making school hateful and by throwing the Giannis out into the streets?

Initially the only thing that interested Sandro and Gianni was the description of the human sexual system in the anatomy book:

> Later they discovered other interesting pages. Later still, they noticed that even history is fun. Some have never stopped discovering. Now they are interested in everything. They teach the younger children and have become like us.

When children were introduced to learning that was actually related to life, there was a complete transformation in their attitude toward school:

> Giancarlo took on himself a job of compiling statistics. He is fifteen years old. He is another of those country boys pronounced by you to be unfit for studying. With us he runs smoothly. He has been engulfed in these figures for four months now. Even Maths has stopped being dry for him.
>
> You, with your Greeks and your Romans, had made him hate history. But we, going through the Second World War, could hold him for hours without a break.

In the public schools, teachers contribute to the dropout problem by humiliating and intimidating children, making school an unpleasant place and learning an unpleasant activity. In Barbiana, each child had the opportunity to be a teacher, and looked forward to school. This system worked better for the poor boy, who could learn without fear. The boy-teacher of Barbiana says,

> You don't need a degree to look through an atlas or explain fractions. If I made some mistakes, that wasn't so bad. It was a relief for the boys, we would work them out together, the hours would go by pleasantly without worry and without fear. You don't know how to run a class the way I do.

Curriculum and teaching divorced from life of the masses

The curriculum of the school is centered around the world of books and is completely divorced from life, especially from the life of the masses. Every subject is taught as an end in itself, rather than having any functional value:

> Your text book covers all the world but never mentions hunger, monopolies, political systems or racialism.
>
> Nothing is found in the newspaper that could help us pass your exams. This proves again how little there is in your school useful for life….we want the diploma for our parents. But politics and the news of each day – they are the sufferings of others and are worth more than your interests or our own.
>
> If schooling has to be brief, then it should be planned according to most urgent needs. Little Pierino, the doctor's son, has plenty of time to read fables. Not Gianni. He is in a factory. He does not need to know whether it was Jupiter who gave birth to Minerva or vice versa. His Italian literature course would have done better to include the contract of the metalworker's union. Did you ever read it, Miss? Aren't you ashamed? It means half the life of half a million families. You keep telling yourselves how well educated you are. But you have all read the same books. Nobody ever asks you anything different.

Teachers, because of their own class background, have little if any knowledge of the real life of their students, and either are not able—or do not make any effort—to connect the curriculum to life:

> One woman teacher ended her lessons before the First World War. She stopped exactly at the spot where school could tie us to life. In the whole year she never once read a newspaper to her class.

Even language was taught in such a way that it could not be put to practical use. The authors contend that both students and teacher understand that such archaic, literary language is useless, but they continue to study it. Why? Here is their answer:

> You do it for the inspector. He does it for the school superintendent. And he does it for the Minister of Education….*That is the most upsetting aspect of your school: It lives as an end in itself.*

It is surprising that a group of rural school children in Italy speak of Gandhi—the most honored and least followed father of the Indian nation:

> In the best, most "modern" book, Gandhi is disposed of in nine lines. Without a word on his thoughts, and even less on his methods.

Gandhi must have attracted their attention because his own educational theory was tailored for the Lucios. He wanted to replace India's traditional elite education, which emphasized the skill of the mind, with education that emphasized the skill of the hand—to replace the book culture with a work culture. He wanted education to be meaningful for the masses—and everyone else—as he believed in the superiority of experience over theory. But the Pierinos of India, those who had a voice in the decision making, were not ready to learn about life by dirtying their hands. So Gandhi's idea of basic education, after due lip-service, was summarily dismissed.

Hospital for the healthy

If children's backgrounds determine their destiny, whatever is school for? There is a simple but striking statement in the book, which has the force of a thunderbolt:

> You returned one of my compositions with a very low grade and this comment: Writers are born, not made. Meanwhile you receive a salary as a teacher of Italian.

In the public school more attention and praise are heaped on the child who does well academically. A teacher had once told the father of one of the authors, "Send him to the fields, he is not made for the books."

> So you are happy taking care of those who are bound to be successful for reasons that lie outside the school.

The Barbiana school, on the other hand, paid more attention to the weaker students:

> A boy without a background, a boy who was slow was made to feel the favorite. It seemed as if the school was meant just for him. Until he could be made to understand, the others would not continue.

However difficult it was, the school did not give up:

> It was so difficult to run the school with them around that the temptation to get rid of them was strong. "But if we lose them, school is no longer school. *It is a hospital which tends to the healthy and rejects the sick."*

The analogy is perfect. The school is there to teach children, not to get rid of children who cannot learn, just as the hospital is there to treat people who are ill.

Skewed standards of measurement

The authors recognize that society's standards of measurement are culture-biased. Though the school of Barbiana was successful in meeting the educational needs of the poor children, it had no control over the examination system, which had the ultimate power in deciding a child's future. The school tried its best with the failures from the public schools, but Gianni, whom they had rescued from his hatred of books by Herculean effort, left Barbiana, never to return, after the outside teacher who conducted his oral exam criticized him for not speaking properly, as defined by the standards of middle-class culture.

If the exam had required Pierino to recognize trees, he would not have been able to identify a single one. But the test was made up by Pierino's parents and friends, who themselves knew nothing about trees. As the authors write about this paradox, "At five, I had mastered the shovel; Pierino, the pencil."

Not only were these children labeled as failures by the public schools, they were also subtly made to realize that what they had learned outside of school was not important. In school, instead of learning more about meaningful things like water and soil and plants, they were taught fables, algebra, and astronomy—which they never understood and which they promptly forgot after exams. The school that should have empowered them with knowledge instead destroyed their self-esteem:

> Forget all those pedagogical theories. If you need a whip I can give you one, but throw away that pen lying on top of your record book. That pen leaves its mark all through the year. The mark of a whip disappears by the next day…because of that nice "modern" pen of yours, Gianni will never in his life be able to read a book. He can't write a decent letter.

Educated people often display pride about the purity and sophistication of their languages. This is what the authors have to say on the subject:

> We should settle what correct language is. Languages are created by the poor, who then go on renewing them forever. The rich crystallize them in order to put on the spot anybody who speaks in a different way. Or in order to make him fail exams.

Not only that, on academic tests of language ability it is not communication that is measured, but the ability to reproduce difficult but useless words:

> You give an A– in French to a boy who, in France, would not know how to ask the whereabouts of the toilet. He could have only asked for owls, pebbles and fans, either in the singular or the plural.

On the other hand, the School of Barbiana had these simple rules for good writing:

> Have something important to say, something useful to everyone or at least to many. Know for whom you are writing. Gather all useful materials. Find a logical pattern with which to develop the theme. Eliminate every useless word. Eliminate every word not used in the spoken language. That is the way my schoolmates and I are writing this letter.

However, when these eloquent children had to write essays on state exams they were confronted with bizarre topics about which they knew nothing and had nothing to say. There is anger and resentment in the authors' words:

> No doubt there was a better flow to the papers of your own young men, already masters in the production of hot air, and warmed-up platitudes.

The situation was no different for nonintellectual tasks; cultural bias intruded everywhere. The gym teacher regarded with a disappointed expression the poor children who did not know how to play basketball. He told the principal that the children had no physical education and they would have to take the exams again. The authors forcefully respond to this, saying,

> Any one of us could climb an oak tree. Once up there we could let go with our hands and chop off a two-hundred point branch with a hatchet. Then we could drag it through the snow to our mothers' doorstep.

At the same time, they sympathize with the learned who live in ivory towers:

> Unlucky Gianni, who can't express himself. Lucky Gianni because he belongs to the whole world…lucky Pierino, because he can speak. Unlucky, because he speaks too much. He, who has nothing important to say. He who repeats only things read in books written by others just like him. He, who is locked up in a refined little circle – cut off from history and geography…the selective school is a sin against god and against men. But god has defended his poor. You want them to be mute, and so god has made you blind.

Conclusion

To understand the mind of the poor farmer's child, who comes to school after spreading manure in the field and will be going back to the cowshed in the evening, we need to listen to people from such backgrounds rather than to expert psychologists or educators. They are the ones who can help us understand what should constitute the curriculum for such students, how to make up for the deficiencies in their home background, how to understand the value of their own superior skills and to measure them by that. Many among us educators are Pierinos, who are exposed only to the world of books, who are ignorant of the richness of the mass culture and are blind to our students' needs and problems. When we become teachers we are

constantly praising the Pierinos and putting down the Lucios. We take the credit for Pierino's success, but blame Lucio for his failure.

The authors of this book offer a brilliant proposal for reform, designed to hold teachers responsible for their work:

> I'd have you paid by piecework. So much for each child who learns one subject, a fine for each child who does not learn a subject. Then your eyes would always be on Gianni...you would fight for the child who needs you most, neglecting the gifted one…you would wake up at night thinking abut him and would try to invent new ways to teach him – ways that would fit his needs. You would go to fetch him from home if he did not show up for class.

Presenting their own statistics and analysis, the authors make a comment that puts the professional researchers to shame:

> Scores of statistical compendia, scores of visits to schools…trips to the ministry of Education….and whole days spent at the calculating machine. ..others may have done similar research before us. They must be the kind of people who can't translate their findings into plain language. We haven't read their findings. Neither have you teachers.

Just as it is important for academic research to reach people, it is also important for literature like this *Letter to a Teacher* to reach teachers, teacher educators, and parents, to help them see the system from a different angle and to stimulate critical thinking.

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Maria Eliza Dulama

Developing Critical Thinking by Using Tables

As students learn, they process various types of information in various ways. For example, a text can be processed on the basis of (a) its physical characteristics (e.g., font size and color, page layout); (b) linguistic characteristics (e.g., the way words are put together to form sentences, the way sentences form paragraphs); and (c) semantic content (the meaning of the words and phrases) (Miclea, 1999). According to cognitive psychology studies, the deeper the processing of a stimulus, the better it is preserved in long-term memory. Craik and Lockhart (quoted in Miclea, 1999, p. 218) said that the processing of a stimulus gets "deeper" when it moves away from physical characteristics and toward conceptual and semantic characteristics. Several studies have concluded that the depth, or quality, of processing is in most cases more important than the amount, or quantity, of the processing. This finding explains why students who study less but more attentively usually fare better on their exams than those who go through the material several times, but only at a superficial level.

Organizing information from a text into table form, and analyzing the data contained in a table, represent deeper levels of information processing than the simple reading of a text. In order to represent information graphically in a table, students must analyze the ideas, extract essential facts, formulate concepts, and group the data according to various criteria (temporal, hierarchical, spatial, etc.), depending upon the logical demands of the theme/subject being studied.

Students can learn how to organize information in graphic form by starting with simple forms and moving toward more complex forms. Teachers can present models for structuring information and demonstrate the procedures used in creating them. Initially students simply copy these models into their notebooks; subsequently they learn how to structure the information by themselves. Examples of several types of tables for organizing information are presented below.

"T" table

The "T" table (see Table 1) can be used to chart pros and cons (arguments for and against), answers to a yes–no question, or opposing opinions on a certain subject (Bernat, 2003). The name comes from the shape of the table.

Table 1 **"T" table**

Pros (Arguments For)	**Cons** (Arguments Against)

For example, the students in my class wrote the following economically based arguments for and against Romania's integration into the European Union (see Table 2).

Table 2 **"T" table example**

Arguments for Romania's integration into the E.U.	Arguments against Romania's integration into the E.U.
• goods can be manufactured under E.U. license	• Romanian goods will compete with E.U. goods
• tax-free commercial exchanges	• market only for E.U. products
• Romanians will have the opportunity to work legally in the E.U.	• excessive exploitation of natural resources
• counseling on economic development strategies	• bankruptcy of certain firms
• the quality of Romanian products will rise	• prices will increase, but incomes will not
• creation of new workplaces	
• percentage increase in foreign investment	
• capitalization of Romanian products on the E.U. market	

The "T" table can be filled out individually or in small groups, using previous knowledge or researching information from various sources. If time is limited, some students could identify the pros, while others identify the cons. As the arguments are presented to the large group, the students can fill in a table in their exercise books, using arguments chosen by consensus. In this context each student has the opportunity to compare his or her arguments with those of the other participants.

Table of arguments and counterarguments

In order to learn how to counter an argument for or against a given idea, students can construct a table that requires them to supply a counterargument for each argument presented (Dulama, 2002). This activity lends itself to working in pairs, with one student formulating the arguments and the other the counterarguments. In Table 3, students investigated socially based arguments for—and counterarguments against—integrating Romania into the E.U.

Table 3 **Argument and counterargument table**

Social arguments for integrating Romania into the E.U.	Counterarguments
• facilities for studying in Western countries	• education in Western countries is very expensive
• mutual recognition of diplomas	• diplomas do not demonstrate same competencies
• better social safety net	• other countries' resources do not contribute to Romania's social safety net
• increase in salaries, pensions, benefits for children	• if there is no economic production, then incomes and expenditures cannot increase
• work opportunities	• jobs will not necessarily be well-paid
• no visas necessary for traveling within the E.U.	• criminals can also move about freely; plus there is the threat of a brain drain and youth exodus
Social arguments against integrating Romania into the E.U.	**Counterarguments**
• Romanians' emigration to the West	• many people already emigrate illegally
• creation of networks for drug, arms, and human trafficking oriented to the West	• some networks are already in place, but Westerners are going to support us in eliminating them
• some people with behavioral disorders will enter Romania from other E.U. countries	• they enter anyway, since a visa is not required
• copying dysfunctional, dangerous behavioral patterns from the West	• negative models are prevalent in movies, computer games: these are a more likely source than visits to Western countries
• people will have difficulty adapting to new laws, rules, situations	• humans are the most adaptable species; Romanians in particular are inventive and adaptable
• Romania is seen as a provider of cheap, unskilled labor	• Romanians will specialize in the professions required by the market

Table 4 Prediction table

Part I		
What do you think will happen?	What evidence do you have?	What actually happened?
Part II		
What do you think will happen?	What evidence do you have?	What actually happened?

After writing the arguments and counterarguments on the blackboard, students can form groups of four to select the strongest counterargument for each argument. A representative from each group will write the strongest counterarguments on the blackboard.

This technique is useful in developing arguments and counterarguments, in comparing various counterarguments, and in choosing the strongest counterarguments for a given argument.

Prediction table

For the strategy known as a prediction table (Temple, Steele, & Meredith, 1998b, p. 8), the teacher reads a story in short sections, and after each section asks the students to predict what might happen next. Students are also asked to explain the evidence on which they based their predictions. The students reflect on the context of the story, its setting in time and space, the logical sequence and consequences of the action, the character traits and behavior of the characters, etc. When students have entered their predictions and evidence into the table, the next fragment is read and students find out what follows in the actual text (see Table 4).

The breaks in the reading take place between certain key elements of the story, to allow the students to anticipate the course of events. This technique encourages the development of the capacity to make predictions based on certain premises and also encourages the students' creativity.

Table of consequences

The prediction technique can also be used with informational texts, such as texts explaining phenomena or processes. For example, the discovery of a large oil field will lead to changes in the local environment. The students are asked to predict what will happen and to develop arguments to support their hypothesis (see Table 5). Then they read the text to discover what happened in reality, compare their predictions/hypotheses with real consequences and actual events, and enter all this information in the table (Dulama, 2002).

Table 5 Table of consequences

What do you think will happen (hypothesis)?	What are the arguments to support your hypothesis?	What actually happened?
• a new human settlement will develop in the neighborhood • people will have new workplaces • the forest will be cut down • the environment will be polluted	• people need houses and other services • the activity is run by people, not by machines • the field cannot be exploited without cutting down the forest • all oil drilling operations pollute the environment	• a city has been founded • 1,000 new jobs were created • 100 hectares of forest were cut down • waters have been polluted • the soil was destroyed on 100 hectares

Table 6 **Horizontal linear table of cause-condition-effect**
Formation of ice from snow in glaciers

Triggering phenomenon	Condition	Effect phenomenon
Snow	T < 0°C	Snow layer forms (water in solid state)
Accumulation of snow in a layer	T > 0°C	Snow melts (water in liquid state)
Liquid water penetrating the snow layer	T < 0°C	Water in liquid state recrystalizes in the snow layer, forming firn (snow crystals become larger and rounder)
Increase in thickness of snow/ice layer Repeated recrystalizations	T < 0°C	Compression of the firn and formation of dense ice of the glacier

This technique is useful not only for helping students anticipate some of the consequences of human actions on the environment, but also for predicting the consequences of an individual's actions. Often, in real life, people do not look at an issue from the perspective of the future but only from their present angle, thus seriously limiting their thinking.

The cause-condition-effect table

This table facilitates the identification of the causes, conditions, and consequences of a phenomenon, and the logical relationships among them. *Cause* is a phenomenon or complex of phenomena that precedes, and in some cases provokes, the appearance of another phenomenon, called the *effect*. *Conditions* are facts or circumstances that influence the appearance of a phenomenon or its progression (slowing down, stimulating, or stopping it). Conditions can influence phenomena both qualitatively and quantitatively. *Effects* (consequences, follow-up, results) are phenomena that necessarily result from a certain cause. The cause-condition-effect table may be used in connection with conducting a science experiment, reading a text, watching a movie, and so forth (Dulama, 2001a). Table 6 is a *horizontal linear table,* that is, the information is presented horizontally (Bernat, 2004).

Comparative table

Some information invites graphic organization for the purpose of comparison, to outline similarities and differences. *Comparison* involves the mental or physical juxtaposition of objects or phenomena for the purpose of establishing similarities and differences. *Similarities* are characteristics the objects possess in common, and *differences* are features specific to one (or some) of them that distinguish one from another. Comparison may use criteria such as color, shape, density, length, and so on. It is not possible to compare the color of an object with its shape. The results of a comparison are expressed by assertions: *Lake X is deeper than lake Y; lake X contains water, same as lake Y; lake X has a lake basin, same as lake Y.*

Students can fill in a comparative table individually or in small groups, usually after reading a text. In Table 7, the students are asked to compare stars and planets on the basis of certain criteria and to deduce the similarities and differences. The information presented in the table is in a concise form, making it easy to understand and learn. To avoid students' learning incorrect information, the table should also be filled in on the chalkboard, or its content discussed in class (Dulama, 2002). The comparative table is a *synthetic table,* as it synthesizes information involving a large number of criteria and shows relationships among the criteria (Bernat, 2004).

In Table 8, which compares North and South Korea, similarities and differences are not specified in a separate column, but they can be deducted from horizontally reading the characteristics of each country.

Concepts table

This graphic organizer (Dulama, 2002, p.164) is useful when comparing two or more concepts (see Table 9). The concepts

Table 7 **Comparative table**

Criterion	Planets	Stars	Similarity (S)/ Difference (D)
Shape	Spherical	Spherical	S
Age	The same within a given system	The same within a given system	S
Evolution	Continuous	Continuous	S
Temperature	High at the core, lower at the surface	Very high	D
State of aggregation	Solid	Gaseous	D
Light	Without its own light	Own light	D
Mass	Small	Large	D
Density	High	Low	D
Movement	Rotates on its own axis and orbits around a star		

Table 8 **Comparative table with similarities and differences not specified**
Korean peninsula (according to student Maxim Ana Maria, quoted by Dulama, 2001, p. 26)

Criteria		Democratic People's Republic of Korea	South Korea
Geography	Location	Eastern Asia – the Korean Peninsula	Eastern Asia – the Korean Peninsula
	Country type	peninsular; socialist republic	peninsular; presidential republic
	Neighboring countries	N – People's Republic of China; NE – Russia; E – Sea of Japan; S – South Korea; W – Yellow Sea	N – Democratic People's Republic of Korea; E – Sea of Japan; S – South China Sea; W – Yellow Sea
Natural conditions	Elevation	– mountainous – N – Continental Korean Mountains – peak Pektu-san – 2744m – E – Diamond Mountains	– predominantly mountainous – Taebaek san Mountains– hills and coastal plains towards the Yellow Sea
	Climate	– temperate continental – abundant rainfall	– temperate oceanic with monsoon influences
	Rivers	– rivers with a well-developed potential for hydroelectric power	– rivers: Hang, Kum, Naktong
	Flora and fauna	– forest covers 70% of the country: Korean cedar, spruce, red pine, Korean maple – Ussuri tigers, lynxes, brown bears	– deciduous forests cover 2/3 of the land – tiger, snow leopard, musk, mountain antelope, wolf, bear
Population settlements	Cities	– capital – Pyongyang – 1.5 million inhabitants	– capital – Seoul – 11 million inhabitants ; Pusan > 4 million inhabitants; Daegu > 2.3 million inhabitants ; Inchon > 1.7 million inhabitants
	Population	– 17 million inhabitants; 38% urban population Density – 139.5 inhabitants/sq kms	– 46 million inhabitants; density – 466 inhabitants / sq km; 73% urban population; religions: Buddhism, Confucianism, Protestant
Economic development	Industry	– resources : high-grade coal; mineral ores : iron, zinc, lead, sulphur – poorly developed industry – major industries: power, metallurgy, machine construction, chemical	– few resources – follows the Japanese model of economic development – major industries: textiles (1/3 of labor force), cars, home appliances, electronics; companies: Daewoo, Samsung, Hyundai, Goldstar
	Agriculture	– wheat, corn, fruit trees – silk worms	– agricultural lands occupy 22% of surface, 50% of this land is planted in rice – some animal husbandry (insignificant) – fishing

Table 9 **Concept table for *ice field* and *iceberg***

Attribute type	Ice field	Iceberg
Color	White	White
Form	Irregular, multiple blocks	Irregular block
Length	Hundreds of meters or kilometers	Hundreds of meters or kilometers
Thickness	90-100 meters	Tens or hundreds of meters or kilometers
Width	Hundreds of meters or kilometers	Hundreds of meters or kilometers
Position	On the surface of polar seas, attached to the continental ice sheet	Floating on the surface of seas and oceans in cold, temperate areas

to be compared are specified, and the properties forming the bases for the comparison are placed in columns. Depending on how the information is structured, this table can be organized vertically or horizontally (Bernat, 2004).

Symbolic table of characteristics

This table, also called a comparative graphic organizer, is used to catalog the characteristics of several concrete objects (see Table 10). The first column gives the names of the objects, and the "head" of the table contains the attributes to be analyzed. If an attribute applies to the object, it is marked with a plus sign (+); if not, it is marked with a minus sign (–) (Gliga & Spiro, 2001). This organizer has several advantages: It can indicate not only opposite properties (cold/warm), but also neutral properties (medium size); and it also allows for easy identification of the properties of a specific object and comparison between objects.

A similar table is used in Temple, Steele, and Meredith (1998a) to activate students' previous knowledge. This strategy involves comparing the features of a new subject with the features of two other previously known subjects. The students mark a plus sign (+) for the characteristics they think both known subjects possess, a minus sign (–) to denote the absences of a characteristic, and a question mark (?) for the situations where they are uncertain. After the students complete the assignment, the teacher fills in the table on the blackboard with the characteristics all agree upon.

Table of figures

The table of figures is a *synthetic* graphical organizer read by determining the intersection points of two sets of criteria, which are arranged along a horizontal axis and a vertical axis (see Table 11). The table of figures can be used to identify the importance of a particular variable or to understand the relationships among all the data gathered in the table. Analysis of the data in the table helps students discover the essential. They may be asked to search for extreme values, compare certain elements, or regroup similar values. The data from the table should not necessarily be memorized. It is more useful for the students to know how to use the data than to memorize figures that have no meaning for them (Dulama, 2001b).

Table 10 **Symbolic table of characteristics of planets**

	Temperature		Dimension		State of aggregation		Life	Satellites	Rings
	High	Low	Large	Small	Solid	Gaseous	Life	Satellites	Rings
Mercury	+	-	-	+	+	-	-	-	-
Venus	+	-	-	-	+	-	-	-	-
Earth	+	-	-	-	+	-	+	+	-
Mars	-	-	-	+	+	-	-	+	-
Jupiter	-	+	+	-	-	+	-	+	-
Saturn	-	+	+	-	-	+	-	+	+
Uranus	-	+	+	-	-	+	-	+	+
Neptune	-	+	+	-	-	+	-	+	+
Pluto	-	+	-	+	-	+	-	+	-

Table 11 **Table of figures**
Total income of Romanian households in 1998 (Benedek, 2004, p. 184)

Households	Total income	Money income	Equivalent value of consumption of agricultural products from own resources
Total households	649 386	70.1%	29.1%
Wage earners	730 506	81.8%	17.7%
Peasants	526 652	44.1%	55.1%
Unemployed	414 963	66.2%	33.1%
Renters	640 968	61.2%	37.5%

Source: Romanian Statistical Yearbook, 2000

Does the use of tables develop critical thinking?

By filling in, analyzing, and interpreting tables, students learn how to

- extract essential information from a text
- interpret information
- identify the connections between different facts and figures
- organize information according to various criteria
- establish logical connections between their previous knowledge and new information
- practice various cognitive processes (e.g., analysis, comparison, synthesis, generalization, abstraction).

By including tables in the teaching process, we can observe that:

- structuring information into tables allows for clearer understanding of concepts and helps students learn the information
- knowledge obtained by in-depth processing is long-lasting and can be applied.

In order to answer the question above, consider some of the meanings of the term "critical thinking" cited by Simona-Elena Bernat (2003, pp. 69–70):

> "Critical thinking means making decisions rationally and considering what to believe and what to do." (Ennis)
>
> "Critical thinking is the questioning or investigation we do when we aim at understanding, evaluating, or solving." (Victor Maiorama)
>
> "Critical thinking is capable, responsible thinking that facilitates sound judgements because: it is based on evidence, it self-corrects, and it is sensitive to the context." (Matthew Lipman)
>
> "To think critically means to be curious, to use investigation strategies: to ask questions and systematically look for answers. Critical thinking acts at several levels, not only to establish the facts, but to find their causes and implications." (Steele, Meredith, and Temple)
>
> "Critical thinking means using those cognitive abilities and strategies that enhance the probability of obtaining a desirable result." (Diane Halpern)

Since creating tables requires elaborating, analyzing, and interpreting information, and structuring content in diverse ways, we contend that using tables in the teaching process facilitates students' development of critical thinking.

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How Graphic Organizers Support Critical Thinking

Samuel Mathews

Maria Eliza Dulama's article demonstrates the flexibility and power of tables in the hands of creative teachers. This idea is supported by the academic literature: Rossi (1990) found that students, whether at higher or lower levels of reading skills upon beginning the study, benefited from having the structure of a text clearly marked. The forms provided in the article give students a framework with which to *unpack* relevant information and relationships in the text. Students using these organizing schemes would be more attuned to the organization of the information and would learn to engage in higher levels of analysis.

Similar strategies can also be used to encourage students to monitor their own comprehension as they are reading. Mayer (2004), on the basis of a review of the literature on subject area learning, suggests that strategies such as those proposed by Dulama can help students learn how to represent information in meaningful ways and make explicit relationships among concepts in text. These skills can lead to higher levels of understanding across subject areas (e.g., mathematic word problems or scientific principles). As the teacher provides structure, instruction, and guidance on how to organize information and how to reframe information in meaningful ways, students develop strategies for higher level learning and ultimately critical thinking about new and difficult ideas.

Halpern (1998) argued that, in order to help students transfer strategies from one setting to another, they should be encouraged to focus on the structure of the relationships within a given text. Tables that reflect the logical structure of a text, identify arguments for or against some point, or establish cause-effect relationships, serve as explicit representations of these relationships. As such they focus students' attention on the relationships among concepts, so students will be more likely to recognize these higher order relationships in other contexts. In addition, the use of tables to record students' identification of these relationships will serve to reinforce the students' self-monitoring of their own comprehension and critical thinking (Halpern, 1998).

Dulama notes that students must also "learn how to structure the information by themselves." Mayer (2004) believes that students learn this process best through modeling. Using the kind of strategies proposed by Dulama and others (Anderson, Howe, Soden, Halliday, & Low, 2001), teachers can employ a think-aloud process to demonstrate the steps involved in designing and creating a table. It is key that students learn to distinguish what kinds of tables might be most appropriate under what circumstances. For instance, if the task is to find cause-effect relationships in a text, and a student constructs a table categorizing the attributes of an animal described in the text, clearly the student either has not understood the task or lacks the necessary skills to complete it.

Teaching students to create their own tables can proceed in several steps. First, the teacher might present a table complete with labels and ask students first to complete the table independently and then share it with a partner, resolving any inconsistencies between the two tables. The next step would be to cue the class as a whole with questions about what information is needed from a text, leading them to construct a *class table*. Once the table was designed, students could complete it independently using the pair-share process described above. Finally, the teacher might assign a task requiring high-level analysis of a text and ask the students to design a table that would assist in the analysis. As students move from filling in tables designed by the teacher to constructing their own tables, teachers can assess their pupils' work for evidence of self-monitoring, strategy use, and ultimately level of analysis.

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Real Readers, Real Writers, and a Home-Grown Experience

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As with many good innovations, it began with a real and pressing problem. We wanted the students at St. Ninian's Primary, a large city school for children ages 5-12 years, to develop a sense of audience for their writing. In Scotland, story writing is commonly taught using story frames and planning sheets that ask students to identify the characters, the setting, the initiating problem/event, and the resolution. Despite this support, students often omit important details because they find it hard to consider their writing from the reader's point of view. This perspective is a vital part of becoming an author: "A sense of authorship comes from the struggle to put something big and vital into print, and from seeing one's own printed words reach the hearts and minds of readers" (Calkins, 1986).

Teachers often use the term *audience* to mean the intended readership. They ask students to think about questions such as "For whom are you writing this?" or "What would these people want to read?" But to be useful to a writer, the concept of audience needs to be deeper and more complex than this. It needs to be discussed in terms of the emotional impact of the writing, and in terms of how readers construct their understanding. We wanted the students to explore two important gaps when writing: the gap between the ideas in the writer's head and the words written on the page, and the gap between the text on the page and the reader's understanding of that text.

This idea of the "audience gap" is a hard concept to teach, but an important one that, in fact, underlies much of the writing process. It explains why writing needs to be clear, clarifies why knowledge of craft is important, and makes the revision process meaningful, rather than something students do simply because the teacher tells them to.

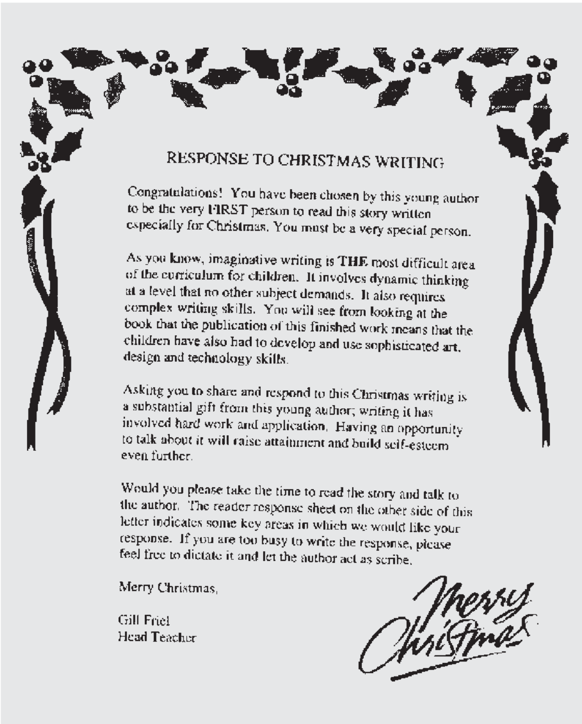
This more complex understanding of audience can accelerate students' development in both reading and writing. When student writers think about how to craft their stories to make the reader visualize things in a particular way, they begin spontaneously to notice the writer's craft as they read (Calkins, 1986). Similarly, when such students write, they think about possible interpretations and become open and sensitive readers. When they can link the previously separate domains of reading and writing, students progress quickly: Activities that had previously only benefited either reading or writing now offer a payoff for both reading *and* writing (Clay, 1998).

Teachers at St. Ninian's already used several approaches to help students develop a deeper sense of audience. Writing was taught in a way that involved a lot of collaborative work. Before beginning a writing task, students sometimes told their stories to a writing partner, who would provide feedback on the most interesting parts or on aspects that needed more explanation. Students regularly worked with response partners to read and discuss each other's writing. In these discussions students were encouraged to imagine putting on a "Writer's Hat" for writing and a "Reader's Hat" for reviewing and editing their work, to help them bring an appropriate mindset to each task. Of course, they also had plenty of teacher feedback, through individual, group, and whole class tutorials. Yet in spite of these efforts, we felt that some students were just going through the motions; that they had not internalized the importance of writing coherently and did not really feel an urgent and personal responsibility to be explicit or clear in their writing.

Community members as partners in writing

The breakthrough came when we enlisted the help of people from outside the school. We asked students to choose a parent or someone else in their home community who would be prepared to read and respond to their writing. We explained that it needed to be someone who would have time for this important job, and it had to be someone the student respected and felt comfortable talking to. Although many students chose a parent, some chose a sibling, a grandparent, a family friend, or child-minder to work with. We sent a letter to these home reviewers explaining the importance of their task (see Figure 1).

To ensure that the home reviewers' advice was helpful and positive, and that students got specific rather than general comments, we used structured feedback sheets (see Figure 2 for an example of the type of questions contained on the sheets). These forms were crucial in framing the dialogue between the home reviewer and student author. We know from interviews we carried



RESPONSE TO CHRISTMAS WRITING

Congratulations! You have been chosen by this young author to be the very FIRST person to read this story written especially for Christmas. You must be a very special person.

As you know, imaginative writing is **THE** most difficult area of the curriculum for children. It involves dynamic thinking at a level that no other subject demands. It also requires complex writing skills. You will see from looking at the book that the publication of this finished work means that the children have also had to develop and use sophisticated art, design and technology skills.

Asking you to share and respond to this Christmas writing is a substantial gift from this young author; writing it has involved hard work and application. Having an opportunity to talk about it will raise attainment and build self-esteem even further.

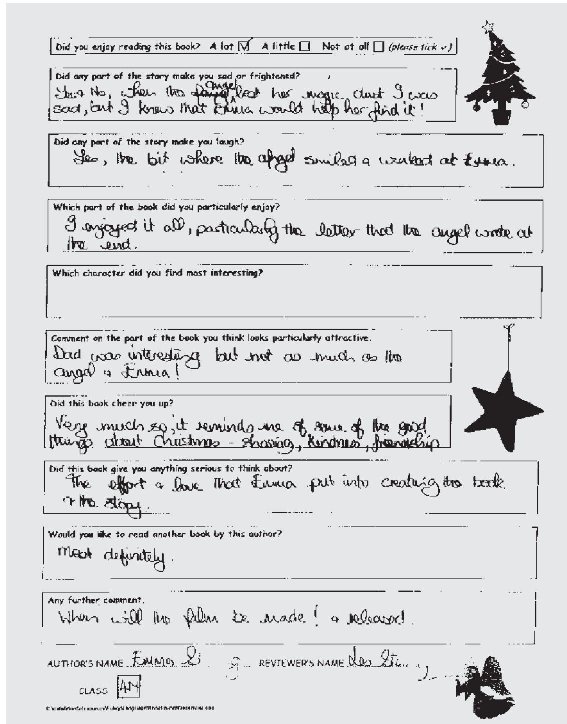
Would you please take the time to read the story and talk to the author. The reader response sheet on the other side of this letter indicates some key areas in which we would like your response. If you are too busy to write the response, please feel free to dictate it and let the author act as scribe.

Merry Christmas,

Gill Friel
Head Teacher

Merry Christmas

Figure 1: Letter sent home to parents



Did you enjoy reading this book? A lot ☑ A little ☐ Not at all ☐ *(please tick ✓)*

Did any part of the story make you sad or frightened?
No, when the angel lost her magic dust I was sad, but I knew that Emma would help her find it!

Did any part of the story make you laugh?
Yes, the bit where the angel smiled & winked at Emma.

Which part of the book did you particularly enjoy?
I enjoyed it all, particularly the letter that the angel wrote at the end.

Which character did you find most interesting?

Comment on the part of the book you think looks particularly attractive.
Dad was interesting but not as much as the angel & Emma!

Did this book cheer you up?
Very much so, it reminds me of some of the good things about Christmas - sharing, kindness, friendship

Did this book give you anything serious to think about?
The effort & love that Emma put into creating the book & the story.

Would you like to read another book by this author?
Most definitely.

Any further comment.
When will the film be made! & released.

AUTHOR'S NAME Emma
REVIEWER'S NAME
CLASS 4M

Figure 2: Reader Response Questions

out with both students and home reviewers that it was the discussion, rather than the written comments, that helped students to understand the impact of their writing, to perceive it from the reader's point of view and, most significantly, to *feel* the importance of this perspective and think seriously about its implications for their writing.

The feedback sheet in Figure 2 was used to structure the discussion for Christmas stories that were written in class by 10-year-old students. Before writing their stories, the class brainstormed examples of good stories for Christmastime and agreed that the genre should involve the triumph of good over adversity, leaving the reader feeling "warm," and have a happy ending. Students decided on their main characters and key events and had regular opportunities to write, draw, and discuss their story with peers and the teacher during the writing process.

The first question for the home reviewer—"Did you enjoy reading this story?"—called for a general response. Every single home reviewer ticked the top box, indicating that he or she had enjoyed reading the story "a lot." This response helped to ensure a positive context for the rest of the discussion.

The next two questions—"Did any part of the story make you sad or frightened?" and "Did any part of the story make you laugh?"—sought to make the story's emotional impact on the reader very clear for our young writers. The students were delighted to realize that their stories had an impact on the home reviewers. Some clearly felt, for the first time, powerful as writers. Our class discussions indicated that the emotional bonds between the writer and the home reviewer heightened the emotional impact of the story, and consequently the pleasure felt by the writers. Although all of the students could think of a time when they themselves had been emotionally affected by a story, very few had believed that they might affect others with their own writing. This was an important reading–writing connection, and it was made very explicit when the students talked to their home reviewers.

The next three questions—"Which part of the book did you particularly enjoy?" "Which character did you find most interesting?" and "Comment on the part of the book you think looks particularly attractive"— were designed to elicit serious and honest debate about the ideas in the story, and how these ideas had were presented. Many students were surprised at the home re-

viewers' answers, and their discussions touched on the craft of writing and the different ways in which the same story could be understood. Based on their knowledge of the student writers, reviewers were able to draw on experiences from outside of school in formulating their explanations, but there were also specific discussions of teaching that had taken place in school. For example, the question "Which character did you find most interesting?" prompted some students to explain particular writing techniques they had been taught in class. One student reported getting into a real debate about what made certain characters interesting. The student thought that in order for characters to be interesting, they had to do lots of things, and he was surprised that his home reviewer had a different opinion. The student explained, "I learned that it's not so much what the character *does*, as who the character *is inside*, that makes for an interesting character. It is like in real life—you have to think about what makes them tick."

Discussion of which part of the book looked most attractive helped students to understand the importance of layout and legible handwriting, and some reviewers also talked about how pictures could add new layers of meaning to the text.

These three questions, which promoted quite detailed (and potentially challenging) feedback, were followed by a return to the more familiar ground of the reader's emotional response. The question "Did this book cheer you up?" targets the key feature of the genre as defined by the students, that the story should have a happy, feel–good effect on the reader. Some students reported quite lengthy discussions involving other books that had also cheered up their reviewers, discussions that both broadened their understanding of the genre and introduced them to new books.

The next question, "Did this book give you anything serious to think about?" had perhaps the greatest impact of all. The reviewers' written responses indicate that the Christmas stories *did* prompt readers to think serious thoughts: about events and characters in the story, about people they knew, and about events they remembered from the past. They thought about the writer and about themselves, and, sometimes, about other stories they had heard or books they had read at Christmastime. Just imagine that you are 10 years old and have written a Christmas story as a school assignment. And here is an adult whom you like and respect telling you that *your* writing made him think seriously about important issues. What better illustration of the power of writing for a young author?

The final two questions on the feedback sheet—"Would you like to read another book by this writer?" and "Any further comments?"—promote a sense of authorship and an expectation that the dialogue will continue, as well as allowing the home reviewer to raise any important issues not already discussed.

A final word about home reviewers

When this project began, some teachers were worried about the type of support and responses that could be expected from home reviewers. But those concerns disappeared after they witnessed how helpful the home reviewers were in improving students' understanding of story structure and writing techniques. Home reviewers also had a big impact on students' attitudes toward writing and on their personal development as authors. The involvement of a home reviewer provided the social and emotional engagement necessary to inspire some students to put their full effort into the task. For other students, interaction with a home reviewer prompted a genuinely inquiring approach to developing their skills as writers. Most importantly, we found our students making changes because they wanted to, and realized that they needed to, rather than because others told them to.

Policies that promote home–school links in the upper stages of primary school are sometimes guilty of viewing the home merely as a place to practice skills previously taught in school. Perhaps this approach needs re-thinking. It may be more beneficial to design learning experiences that build on what most homes offer in abundance: love, a deep shared history, and a genuine interest in the child as a person.

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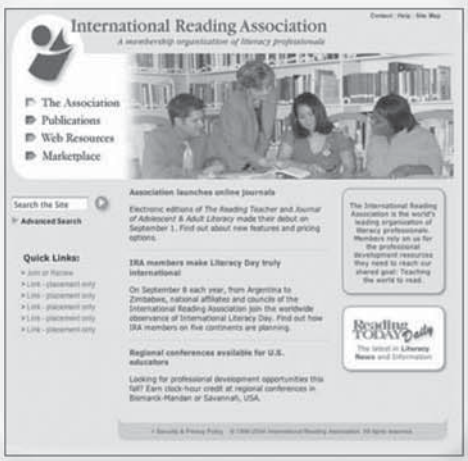

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