Accelerating Literacy Learning $\textbf{1}$

> *"Let us put our minds together and see what life we can make for our children."*
>
> —Chief Sitting Bull (1877)

ACADEMIC ACCOUNTABILITY

In the dark ages, when we started teaching, we were not held accountable for much of anything related to student growth and achievement. Dialogue with the principal went something like this:

> Your students are sitting in their chairs and raising their hands. It is good that your lesson plans are ready for the substitute. Have you thought about the new deadline for getting your grades into the office?

Then we began to focus on the expectation that teachers would follow a process when instructing. The dialogue with the principal then went something like this:

Your wait time is good, and the ideas for initially engaging students at the start of the lesson seem to be working. You may want to write out two or three questions ahead of time to check for understanding.

But the 1990s brought us standards-based education, and the focus for accountability became student learning. The dialogue with the principal in many schools now goes something like this:

If I walk through your classroom, will the students know what standard you are teaching? I like the performance assessment you created for that unit.

But, given the proper excuses about home life, disability, or language limitations, we still don't always mean real accountability for all students. The twenty-first century accountability challenge, however, says that we will not leave students behind and, more significantly, that we will close the learning gap for all groups of students.

CLOSING THE ACHIEVEMENT GAP

The first thing that many teaching texts tell us about the achievement gap is to quit making excuses and get on with it. That is a worthy mission, but it is harder than it looks. We have outstanding educators working hard in classrooms and schools all over the country. These are dedicated and innovative people. We have research that tells us about powerful and exciting strategies that work, but we still need to know where to start and which tools and strategies to employ for which students. Knowing when to utilize these top-notch strategies would be helpful information as well.

This means the teacher-principal dialogue needs to shift to a discussion of what incremental growth looks like for each group of students and to careful consideration of how we articulate the curriculum through the expected level of student work and performance. The principal may need to join a lesson study group or a group of teachers who are using student work for evaluation and lesson planning. That could provide one of the best venues for effective dialogue that focuses on the academic growth of every student.

So what does our retrospective look at the recent history of education have to do with this book? We believe that the key to closing the achievement gap for any individual student or group of students lies in the acquisition of skills and demonstrations of learning that clearly reflect a high degree of literacy. Without a focus on literacy, it is hard to imagine

the acceleration of learning needed to demonstrate increased scores on high-stakes tests, let alone other worthy accomplishments appropriate for success in the twenty-first century.

DIVERSE LEARNERS AND BUSY TEACHERS

In the United States and in many other countries, teachers are currently held accountable for closing the learning gap for all racial and ethnic groups; students identified as disabled; gender groups; students living in poverty; students for whom English is not the primary language; and, in some states, regions, or districts, for students who may be identified as gifted or talented. In this book, we want to highlight literacy strategies that are likely to be useful with many different kinds of learners, but, in addition to *useful,* we've added an additional criterion: We also want to focus on literacy strategies that show promise for *increasing student success* and, in some cases, increasing such success *rapidly.*

We believe that is the way to help teachers make gap-closing choices. Teachers do not work the way of doctors and lawyers. We don't meet with most students one-on-one, and we don't have a team of folks to back us up by assisting with paperwork or running diagnostic tests. We are teachers in classrooms working with multiple and diverse students, or we are specialists, administrators, and leaders working to support multiple and diverse teachers and students in multiple and diverse classroom settings.

We need practical strategies that address the realities of classroom conditions. Those realities include issues such as the following:

- What do I do with twenty-four students while I do a miscue analysis or individual reading inventory with one student?
- I have seven students with Individualized Education Plans (IEPs), and each one is unique.
- I have five students from three countries: Some speak a little English, and the two who arrived last week speak no English.
- I have twelve students who scored below proficient on the state reading and writing assessment and three who scored advanced.
- Which of my students ate a meal today, and which of them have a home to go to this evening?

We could add another twenty-five modifiers to describe many urban and rural classrooms in our schools today. That means our goal must be to provide teachers with the right strategies for the right students when time, resources, and support are limited.

SELECTING HIGH-PAYOFF INSTRUCTIONAL STRATEGIES

In this book we have used icons and descriptors to organize and differentiate learning and teaching strategies and to indicate their value or payoff for a particular type of learner. They are all great strategies for any teacher's repertoire, but our particular goal here is to help busy teachers meet diverse learner needs in every lesson and every unit.

We also need to think about how to frame the questions regarding the systematic and productive instruction of various types of learners. This will yield better strategy selections for teachers and a higher payoff for students. For example, instead of asking how to manage special education students in general education classrooms, we can get more specific. We can ask the following questions:

- How do we accommodate and advance the growth of students who have learning disabilities as well as linguistic difficulties?
- Which strategies are most useful for primary grade males who struggle with narrative writing?
- How do we handle a learner who knows a little English, but not enough to speak fluently?

This book will help you to formulate those questions and then provide you with some of the strategies shown by research to provide the most promise for student growth for the relevant individuals and learner subgroups. When discussing learner subgroups it is not functional for a teacher to speak only of a student on an IEP. A teacher needs to know the type of disability and the expectations for accommodations to select strategies that meet a particular student's needs. What if that same child is twice exceptional, perhaps gifted in specific academic areas such as mathematics and science? Then identifying learner needs and selecting instructional strategies may become extraordinarily complex (see Table 1.1).

The extraordinary variety within learner subgroups is why Marzano, Pickering, and Pollack's (2001) nine strategies and Gardner's (1983) multiple intelligences are so attractive to teachers. It is easier for teachers to think about a small group of top-notch strategies than a hundred strategies of undetermined usefulness. But we would like to introduce another option as well: Teachers can learn a repertoire of top-notch instructional strategies that also meet specific types of learner needs.

For example, we could choose to discuss buddy reading rather than round-robin reading. We know that buddy reading increases fluency, benefits young learners, reduces risk factors for English Language Learners, and helps males who are reluctant readers. But we also know that buddy reading may not be the best strategy for special needs learners

Table 1.1   Variation within student subgroups

Special Education	Linguistic Disability	Content Area—Specific Processing Difficulty	Physical	Emotional	Cognitive Disability	Other: Autism, Multi-categorical	
English Language Learner	No English	Survival Personal and Social English	Survival Content Area English	Functional Personal and Social English	Functional Content Area English	Competent Personal and Social English	Competent Content Area English
Poverty	Homeless	Generational Poverty	Temporary or Situational Poverty				
Gender	Male	Female					
Gifted	General Giftedness	Specific Area Giftedness	Specific Area Talented				
Ethnic	Cultural Influences	Racial Influences	Geographic Influences				

Table 1.2   Sample strategy format

Strategy: *Buddy Reading*

Literacy Competency: Functional Literacy for Reading Fluency

Description: In Buddy Reading students take turns reading to each other to increase fluency

Advantages: Increases the amount of reading aloud, allows external looping (hearing the words for imprint in the brain), takes advantage of students' natural inclination for social interaction, and is less emotionally risky than reading aloud to the class or in a small group

How to Use: Pair students who are less able with those who are more able readers. Choose text that is at the learning level, not the frustrating level. Can be paired with a graphic organizer to address comprehension of reading selection. Adjust time for activity by age level appropriateness. Students trade off oral reading to each other by paragraph, page, or section of the selection.

Source: (Tompkins, 2003)

Bottom Line Examples:

⇑ This strategy works well for young learners who need to increase their fluency, it reduces the risk factor for English Language Learners, and it helps males who are reluctant readers

⇓ This strategy does not work as well for special education learners with linguistic or auditory processing difficulties or for an advanced reader who is already fluent. However it may work with additional modifications

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with linguistic processing difficulties or advanced readers who are already fluent. The bottom line in this book is that we will give you those indicators for the well-researched strategies we propose, identifying which types of learners may benefit from each strategy and which learners may not be as well-served (see Table 1.2).

STANDARDS-BASED CURRICULUM

What should teachers teach and what should students learn are critical questions. We have only so much time, and, even with standards-based education, we cannot do it all well. In reading, writing, speaking, and listening, we still need to decide where to focus our attention and how to divide our time. Not all standards and grade-level benchmarks or indicators are created equal. Doug Reeves (2000) and Larry Ainsworth (2003) are among those who talk about "power standards," those standards that are the most critical and on which we should focus much of our time. For literacy, most state standards commonly look like this:

"Students will read and write for a variety of purposes and audiences." Entire courses and curricula across grade levels could be written to define that standard. So many different instructional materials and approaches could work that it is difficult to rule out those that might not fit.

Deciding what is important to teach and, for which learners such things should be taught remains challenging. Often, state, county, or district departments of education define discrete skills for each grade level that must be mastered for the state assessment, and, although these definitions may help a teacher plan time, they do not help students learn. So we must add a framework that makes sense in diverse classrooms. We must plan ahead for students if they are to be lifelong, literate learners in the twenty-first century.

FOUR CORE COMPETENCIES IN LITERACY

We cannot focus our literacy efforts on just early reading. We do regard and define a level of functional literacy as essential. Foundational use of phonics, demonstration of fluency, oral language use, early writing, and initial meaning creation are critical aspects of functional literacy, but our twenty-first century learners need more than a functional literacy basis to plan for a future that will include new careers and technologies we cannot even imagine. Complex international influences, changing and emerging employment situations, and interpersonal and social conditions all require us to read, write, speak, and listen for a variety of purposes and then to take actions based on that understanding. "Instruction in metacognitive strategies can improve reading comprehension. Good comprehenders read to purpose and actively monitor their own understanding of what they read" (RAND Report, 2002).

In this book we look at four major competencies in literacy that help us weave student learning strategies into the future:

1. Functional Literacy

2. Content Area Literacy

3. Technological Literacy

4. Innovative Literacy

What do we need to know about these literacies, and how will they help us close the learning gap for diverse students? Table 1.3 and Figure 1.1 offer definitions and explanations of how these literacies can work together to help our students survive and thrive in the twenty-first century.
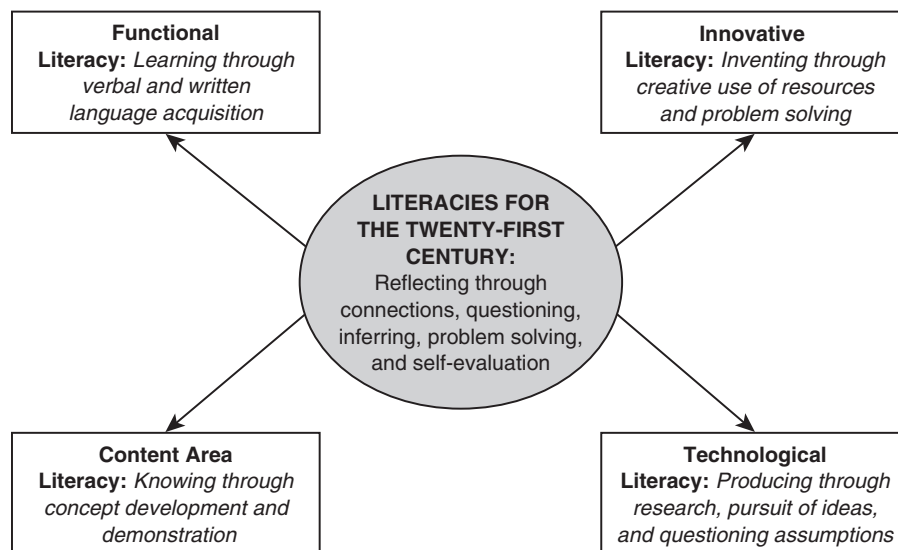
Table 1.3   Factors critical to development of the four types of literacy

TYPE OF LITERACY	CRITICAL FACTORS
1. Functional Literacy	
Defined as: Learning to read, write, speak, and listen **Purpose:** To teach students how to read and write to a basic level of functioning by the end of third grade or, for those just learning English, by the third to fifth year of learning the language **Sources:** McEwan, (2002); U.S. Department of Health and Human Services (2000) *"[T]hey will need to acquire an intimate knowledge of the code: the conventionally accepted way in which letters or groups of letters correspond to spoken sounds in our language"* (McEwan, 2002, p. 32).	***Oral Language Development:*** Including speaking and listening ***Phonological Awareness:*** Sounds and their differences ***Phonemics:*** Translating sounds into symbols, learning the symbols ***Spelling/Early Writing:*** Translating symbols into and words in writing to convey meaning ***Fluency:*** Rate of reading, flow of sounds, without the interference of errors ***Creating Meaning:*** Constructing what the written words are about, main ideas, literal information, details noted from words, pictures, speech, and other sources, easily getting the "gist" of a passage of print or graphic ***Narrative Writing and Descriptive:*** Telling a story, making comparisons, detailed descriptions, other forms of creative writing
2. Content Area Literacy	
Defined as: Reading, writing, speaking, and listening to demonstrate content area learning **Purpose:** Understanding and use of content area-specific knowledge and skills directed toward a specific result or demonstration of skill through a variety of means **Sources:** Vacca and Vacca (2002), Harvey and Goudvis (1998, 2000), Miller (2003), Burke (2000), Benjamin (2002) *Academic literacy differs from the literacy that is required to read fiction. When we read fiction, we usually do so for pleasure, looking to lose ourselves in the beauty of the language and the story. With academic readings, we need to employ strategies of reading that are directed more toward finding specific information and remembering it* (Benjamin, 2002, p. 29).	***Vocabulary Acquisition:*** Gateway to using content area knowledge, development and interconnection of concepts in a content area ***Questioning:*** Formulating questions to understand and inquire further about a content area skill or concept ***Text Orientation:*** Understanding the construction and factors that aid meaning in text or material construction for a particular content area including graphical or visual representations as well as book parts and text clues ***Expository Writing:*** Factual information to recount or inform or direct a reader. Convey thinking about a content area topic or problem, note patterns or trends, and demonstrate usefulness of the content area ***Presentation and Product Creation:*** Performance-based summative demonstration of the integration of information and skills given a topic or problem

TYPE OF LITERACY	CRITICAL FACTORS
3. Technological Literacy	
Defined as: Using reading, writing, speaking, and listening in multimedia venues to create products and demonstrations of learning **Purpose:** Multidimensional thinking and production through access, use, and creation employing technology-based tools and strategies. **Sources:** Thornburg (1991), Bruce (2003) *"As a user of personal computers, you can help others understand the benefit of this technology in extending students' ability to explore the space of concepts and ideas"* (Thornburg, 1991, p. 13).	***Questioning Authenticity:*** Applying criteria to establish author and Web site credibility, detecting assumptions, purpose, and clarity ***Searching for Information:*** Utilizing the nature and structure of Web-based information to find what you need, demonstrate dimensional or embedded thinking and solve problems ***Media Orientation:*** What is the best method for the product and meaning you must convey or produce ***Production:*** Utilizing computer-based and other multimedia production to demonstrate literacy competencies and produce products to convey meaning, solutions, and adaptations ***Demystifying Directions:*** Understanding and using directions in multiple forms and verbal or written construction of sequential steps for use of technological and other tools and processes
4. Innovative Literacy	
Defined as: Reading, writing, speaking, and listening to do or solve something complex, invent something unique, or produce something innovative **Purpose:** Develop the adaptability and orientation to work and life inside and outside of the school setting to survive and thrive amid rapid change and expansion of knowledge **Sources:** Sternberg (1996); Manzo (1998); Manzo, Barnhill, Land, Manzo, and Thomas (1997); Manzo, Manzo, and Albee (2002); Manzo, Manzo, Barnhill, and Thomas (2000); Manzo, Manzo, and Estes (2001); Barton (2003) *Successfully intelligent people are flexible in adapting to the roles they need to fulfill. They recognize that they will have to change the way they work to fit the task and situation at hand, and then they analyze what these changes will have to be and make them* (Sternberg, 1996, p.153).	***Innovation and Creativity:*** Entrepreneurial sense of thinking and acting, fluid and flexible in use of information and transformation of knowledge into new things, attitudes, solutions, products, and/or actions ***Lifelong Learner Orientation:*** Acquiring marketable skills over time, responding to anticipated need, and creating ways to assimilate and accommodate to change, regardless of speed of the change ***Practical and Adaptive Thinking:*** Scenario-based thinking and responses to real-life situations, interpreting new information, inquiry, consumer skills that are self-selected based on desired result. Adapting the information or interactions to make decisions or plans for the present and the future ***Influential Communication:*** Communicating to convince others of a point of view, applying rationale, ethical, and congruent logic that supports creative, positive solutions and conclusions

Figure 1.1 Four types of literacy critical to the future success of our students

| Functional Literacy: *Learning through verbal and written language acquisition* | Innovative Literacy: *Inventing through creative use of resources and problem solving* |
| Content Area Literacy: *Knowing through concept development and demonstration* | Technological Literacy: *Producing through research, pursuit of ideas, and questioning assumptions* |

LITERACIES FOR THE TWENTY-FIRST CENTURY: Reflecting through connections, questioning, inferring, problem solving, and self-evaluation

Standards and Curriculum

The four literacies act as a lens for the standards and curriculum for which teachers are accountable, and they can help us frame the critical elements for which we want to hold students accountable. Each of the four literacies is critical to the overall development of our students and their ability to access and process information at an accelerating rate in an ever-changing world. Although each one can be taught separately, most learning will lend itself to a combination of literacies. This will help us select key standards-based concepts and strategies that help students focus on skills to demonstrate content learned in many ways.

Critical Thinking

Across each of the literacies is embedded the idea of critical thinking:

- **Schema development:** summarizing and generalizing concepts and ideas, making connections from the known to the unknown
- **Inferential thinking:** discovering the meaning behind the obvious; using cause and effect analysis; determining point of view, voice, and congruence in thinking

- **Questioning:** formulating questions that determine assumptions, allow self-evaluation, and establish purpose and clarity
- **Problem solving:** analyzing a problem and developing solutions that make sense, then speaking, writing, or producing to convey solutions and methods

Instructional Strategies

Which instructional strategies have the highest payoff? Marzano, Pickering, and Pollack (2001) looked at the research carefully and did a metacognitive study of strategies that resulted in increased performance for students. Table 1.4 summarizes the literacy tactics shown to have resulted in percentile gains when used to teach thinking, reflecting, and literacy skills that connect to what we know about the brain. We will refer to and use these and other research-based instructional strategies throughout this book. We will also look at each of the four literacies in more detail and then show you the natural connections and advantages in planning units for various grade levels and subjects.

ASSESSMENT DATA

We will highlight numerous strategies in this book that work equally well for gathering both formal and informal data, instructing, and demonstrating learning. Data-driven decisions are critically important to choosing the most valuable instructional strategies for diverse learners in a variety of circumstances. This type of thinking will help us make the numerous adjustments that diverse student growth requires (Gregory & Kuzmich, 2004).

Painless Diagnostic Assessment for Young Students

In a Colorado school, two first-grade teachers have developed and planned a two-week unit on nursery rhymes and Mother Goose for the start of the school year. The entire unit will be a preassessment of their students' literacy skills. During those two weeks, the students will do the following:

- Listen and recite rhymes
- Write and draw about the rhymes
- Use a computer program that does interactive reading and play
- Read their favorite rhymes
- Read new and unfamiliar rhymes
- Create their own new rhyme or tale

Table 1.4   Research-based literacy tactics and percentile gains in student performance

Strategy	%ile Gain	Connections to Brain Research	Literacy Tactics
Using similarities and differences, analogies, and metaphors	45	The brain is a pattern-seeking device. It naturally looks for connections and relationships between and among prior and new learning.	• Classifying • Compare contrast • Venn Diagrams • Synectics • Concept attainment • Concept formation
Summarizing and note taking	34	Relevance and meaning are important to the brain. It deletes what is not useful.	• Mind maps • Concept webs • Jigsaw activities • Reciprocal • Templates and advance organizers
Reinforcing effort and providing recognition	29	The brain responds positively to challenge and negatively to threat. Emotions enhance or negate learning.	• Goal setting and feedback or reflection • Journals • Portfolios
Assigning homework and practice	28	Practice and rehearsal is necessary to put new information into long-term memory. Marzano et al. (2001) suggest that learners need 24 practice trials to reach 80 percent mastery.	• Extension of application • Four squares • Book bags • Puppets • Five-finger writing
Generating nonlinguistic representations	27	The brain is a parallel processor. Visual stimuli are recalled with 90% accuracy.	• Mind maps • Graphic organizers • Models
Using cooperative learning	27	The brain is social and desires opportunities to process and make meaning through interaction and dialogue.	• Shared reading • Guided reading • Reciprocal learning • Peer editing • Buddy reading • Choral reading • Progressive writing • Jigsaw activities • Literature circles

Strategy	%ile Gain	Connections to Brain Research	Literacy Tactics
Setting objectives and providing feedback	23	Relaxed alertness is important for the brain. High challenge and low threat are optimal for learners. The brain likes to have purpose and know where the learner is going. This provides safety, clarity, and structure.	• Goal setting • Rubrics • Clear criteria • High expectations • Appropriate challenge and choice
Generating and testing hypothesis	23	The brain is curious and seeks meaning and clarity. It establishes schemas for future use and makes meaning through patterns.	• Research papers • Investigations • Debates • Persuasive writing
Providing questions, cues, and advance organizers.	22	The brain appreciates wholes and parts. The brain has to have schemas and mental constructs on which to hook new learning.	• Levels of Bloom's taxonomy • Paul and Elder's standards for questions • Agenda maps • Guided reading • Diagrams and charts • Graphic organizers • Templates and advance organizers

Source: Adapted with permission from Parry and Gregory (2003).

Note: For a fuller discussion of this topic, see Marzano, Norford, Paynter, Gaddy, and Pickering (2001).

Preassessment activities will continue in other areas as well:

- In physical education, the teacher will ask the students to act out the actions of the characters from rhymes
- In art, students will create and illustrate books and finger puppets
- In music, students will sing familiar tunes

What kinds of data will teachers have when the unit is complete? Will it help them plan for future instruction and learning? Teachers will know about the following and more:

- Phonological awareness
- Application of phonemic strategies
- Fluency
- Sense of meaning and thinking
- Sense of purpose
- Fine and gross motor skills
- Sense of linguistics
- Oral language
- Semantic acquisition strategies
- Social interaction skills
- Technology skills
- Creativity
- Initiation and problem solving
- Group cooperation

What a high-payoff process! Clearly, one effective way to preassess literacy skills is through the use of an initial engaging unit of study that integrates many areas of literacy.

Ongoing Formative Assessment

Not all assessments need to be individual or formally written and recorded. The collection of the right kind of informal data can be invaluable in helping teachers plot out next steps. From a unit like this, a teacher can flexibly group students for phonics, select (and help a student select) materials of an appropriate level to advance fluency and meaning, choose the next steps in writing and fine motor coordination, plan the type of sharing needed to advance oral language skills, and much more.

Diagnostic thinking is an essential element in a successful literacy program that meets and accelerates the learning of diverse students. In many classrooms, we have data about student learning, and teachers have a repertoire of strategies to help students learn. We must connect what we learn about student performance with our selection of strategies. We will

accelerate learning if we choose strategies that make sense given current student demonstrations of literacy. This is an ongoing process. We must collect classroom data frequently so that we can adjust our strategies to reflect student speed of learning and success with learning (see Table 1.5). Waiting three months to discover that a student did not make the expected progress won't work to close a learning gap. Continuous strategy adjustment and monitoring will increase the accuracy of our instruction and thereby increase the probability that students will demonstrate growth in literacy skills.

Table 1.5   Selected methods for collecting assessment data about literacy skills

Type of Literacy	Selected Data Collection Methods
Functional Literacy	Oral reading for fluency Writing sample Verbal report, description, or story Retell a written or oral story Write a question or two with the answer Identify the main idea Miscue analysis (noting phonological and phonemic errors) Draw a picture to represent an idea or story Create a word list for writing Correct a writing sample to conventional spelling, grammar, punctuation, or capitalization Narrative or descriptive writing that tells a story, makes comparisons, gives details, and is creative
Content Area Literacy	Graphic organizer completion Note taking Homework Develop questions for investigation of a topic or issue Choose a topic or problem to investigate Expository writing samples, both short and long Presentation of a project or solution Explanation of a process or solution Interpretation of a visual or graphic piece of information Correct a writing sample for word choice accuracy and variety Create a written or verbal summary Cause and effect analysis Analyze a problem and develop solutions Write to test a premise, determine a point of view, express voice, report, or draw conclusions Correct a writing sample for voice, details, evidence, and conclusions Predict outcomes or effects Generalize concepts through application-oriented activities like role plays or simulations

(Continued)

Table 1.5 (Continued)

Type of Literacy	Selected Data Collection Methods
Technological Literacy	Scavenger hunt for sources on the Internet Question an assumption Self-evaluate work Create a flowchart for a search or information Map a complex idea Choose the best product or resources for the desired results Computer-generated writing samples Graphic organizer generation or other visual representation like Microsoft PowerPoint or drawing programs Generate directions or implement action based on complex directions Teach others a process, program, or product using various media Correct a writing sample for format, graphics, color, and other media
Innovative Literacy	Use a "4 Squares for Creativity" organizer Anticipate a need or develop a solution to a possible problem Create budget, graph data based on self-generated data Respond to a scenario, participate in a simulation Self-select method of learning and justify the choice Persuasive writing sample Detect errors and describe how to fix them Generate multiple and creative uses for an object Anticipate the needs of self and others in completing a complex task, listing necessary resources or assistance Correct a writing sample for innovative ideas, point of view, adequacy of a claim and evidence to back it up, creativity of conclusions

A COMPREHENSIVE LITERACY PROGRAM

Comprehensive literacy instruction should include the four literacies in two distinct ways. First, strengthening these areas of literacy gives us tools and support for the traditional literacy skills of reading, writing, speaking, and listening, but also important for learners are the emerging literacy skills that will support successful lifelong learning in the twenty-first century.

In the first example, technology can be a tool that helps learners with special needs who struggle with fluidity in writing. It can provide a more effective means of getting thoughts down than handwritten work would allow. In the second arena, learning to search for information in a

Web-based environment is a distinct form of literacy that is recent and evolving. An enterprising, real-life project may engage an otherwise reluctant second-grade male student in ways that haven't engaged him before. Added payoff comes as adaptive reasoning; using multiple sources of information becomes an essential and highly valued literacy skill in the work world.

This type of approach goes beyond deep thinking and higher order skills to the combination of information assimilation, creative use of products or process, and a transformative goal such as the invention of a product or creation of a Web-based business. In this book we will apply these literacies to the growth of diverse learners and identify tools to assist struggling, functional, and advanced learners.