Here we go again! There is much in this edition of *Content Area Reading: Literacy and Learning Across the Curriculum* that is new and revitalized. Changes are interwoven throughout the book in the form of new and updated sections of content in many of the chapters, a new chapter on supporting teacher effectiveness with professional development, updated references, and new examples of instructional strategies. A wealth of practical activities and instructional strategies for content literacy remain at the core of this edition. These activities and strategies are sensible and powerful tools for helping students think and learn with text. How teachers adapt them to align with the peculiarities and conventions of their disciplines is the key to literacy and learning in content areas.

**New to This Edition**

This edition continues to reflect an ever-expanding knowledge base grounded in research and practice in the areas of content literacy, cognition and learning, educational policy, national and state standards, new literacies, instructional scaffolding, teacher effectiveness, differentiated instruction, writing to learn, and student diversity. Chapter content has been rigorously updated to reflect current theory, research, and practice related to literacy and learning across the curriculum. Expanded emphasis has been given throughout many of the chapters on what it means to be literate in the twenty-first century. New and updated content and features of this text include the following:

- **Chapter 1, Literacy Matters**, includes new sections on effective teaching, differentiated instruction, and the Common Core State Standards.
- **Chapter 2, Learning with New Literacies**, is updated to include expanded coverage of content standards related to digital learning and a new section on the use threaded discussions.
- **Chapter 3, Culturally Responsive Teaching in Diverse Classrooms**, contains several new sections on culturally responsive instruction, including five essential themes to consider when developing a framework for culturally relevant pedagogy; an expanded discussion of multicultural literature including how such literature can be used across content areas to meet diverse learner needs; and a major reworking of the ELL sub-sections which now includes a discussion of why content literacy can be particularly challenging for English learners.
- **Chapter 4, Assessing Students and Texts**, includes updated content on current issues related to high-stakes testing, legislation, standards, and accountability; an extended discussion of the evolution of NCLB as well as of current legislative initiatives, in particular the Common Core Standards; a revised section on portfolios to reflect electronic-portfolio use and strategies to adapt portfolios to various disciplines; and an updated section on Lexile levels and suggestions for their use in content area classrooms.
- **Chapter 6, Activating Prior Knowledge and Interest**, incorporates new content and examples throughout, including a detailed discussion of the importance of self-efficacy.
and a survey to assess teachers’ self-efficacy as part of their pre-service training or in-service professional development.

• **Chapter 12, Supporting Effective Teaching with Professional Development**, is new to this edition and reflects the current emphasis placed on teacher effectiveness and the challenges and trends associated with ongoing professional development. The chapter also focuses on the leadership roles of teacher, principal, and literacy coach and features two programs for collaborative professional learning.

• **Voices from the Field** features in many of the chapters include interviews with teachers, administrators, and literacy coaches and specialists related to content literacy policies and practices. The interviews capture the particular challenges that various school personnel have encountered relative to chapter topics and the strategies used to address those challenges.

• **RTI for Struggling Adolescent Learners** features in several of the chapters have been updated and show how it may be adapted to various aspects of content literacy instruction.

• **New instructional examples** throughout many of the chapters replace some of the examples that have been in previous editions.

• **Updates of new research** and ways of thinking about literacy, learning, and instructional practice appear throughout the chapters.

Did you know this book is also available as an enhanced Pearson eText? The affordable, interactive version of this text includes 3–5 videos per chapter that exemplify, model, or expand upon chapter concepts. To learn more about the enhanced Pearson eText, go to [www.pearsonhighered.com/etextbooks](http://www.pearsonhighered.com/etextbooks).

**Organization and Features of This Edition**

As part of the revision process for this edition, we decided to keep the same structure as the previous edition by organizing chapters into two main parts. Part One, Learners, Literacies, and Texts, places the focus on the cultural, linguistic, and academic diversity of today’s learners; their personal and academic literacies; and the kinds of texts that are integral to their lives in and out of school. Part Two, Instructional Practices and Strategies, contains a multitude of evidence-based instructional strategies waiting to be adapted to meet the conceptual demands inherent in disciplinary learning.

This edition of *Content Area Reading* retains many of the features of the previous edition while improving its overall coverage of content literacy topics. It continues to emphasize a contemporary, functional approach to content literacy instruction. In a functional approach, content area teachers learn how to integrate literacy-related strategies into instructional routines without sacrificing the teaching of content. Our intent is not to morph a content teacher into a reading specialist or writing instructor. Rather, our goal has always been, and shall continue to be, to improve the overall coverage of instructional strategies and practices that remain at the heart of this book. In every chapter, special pedagogical features are provided to aid in this effort.
Features at the beginning of each chapter include the following:

- An organizing principle provides readers with a “heads-up” by introducing the rationale for the chapter and highlighting its underlying theme.

- A graphic organizer depicts the relationships among ideas presented in the chapter.

Frame of Mind questions help readers approach the text in a critical frame of mind as they analyze and interpret information presented.
Evidence-Based Best Practices highlight the steps and procedures involved in high-visiblity strategies that are supported by scientifically sound rationales and/or evidence-based, scientific research.

RTI for Struggling Adolescent Learners occur in many of the chapters and show how Response to Intervention (RTI) may be adapted to various aspects of content literacy instruction.
Special marginal notations and callouts provide opportunities to enhance the basic instruction within the chapters:

Response Journal marginal icons signal readers to use a “response journal” while reading to make personal and professional connections as they react to ideas presented in each chapter.

Box 6.6 Evidence-Based Best Practices

Classroom Artifact figures throughout the book illustrate instructional procedures and materials developed by teachers for authentic teaching situations.

Chapters conclude with additional features that help readers review and practice the concepts in the chapter:

Looking Back, Looking Forward sections at the end of each chapter offer a summative review of the concepts introduced and a perspective on where the discussion will lead to next.
Minds On activities engage students in thinking more deeply about some of the important ideas that they have studied.

Hands On activities engage students in applying some of the important ideas that they have studied.
In *Preparing Teachers for a Changing World*, Linda Darling-Hammond and her colleagues point out that grounding teacher education in real classrooms—among real teachers and students and among actual examples of students’ and teachers’ work—is an important, and perhaps even an essential, part of training teachers for the complexities of teaching in today’s classrooms.

In the MyEducationLab for this course educators will find the following features and resources.

**Advanced Data and Performance Reporting Aligned to National Standards**

Advanced data and performance reporting helps educators quickly identify gaps in student learning and gauge and address individual and classroom performance. Educators easily see the connection between coursework, concept mastery, and national teaching standards with highly-visual views of performance reports. Data and assessments align directly to national teaching standards, including *International Reading Association’s Standards for Reading Professionals and Common Core*, and support reporting for state and accreditation requirements.

**Study Plan Specific to Your Text**

MyEducationLab gives students the opportunity to test themselves on key concepts and skills, track their own progress through the course, and access personalized Study Plan activities.

The customized Study Plan is generated based on students’ pretest results. Incorrect questions from the pretest indicate specific textbook learning outcomes the student is struggling with. The customized Study Plan suggests specific enriching activities for particular learning outcomes, helping students focus. Personalized Study Plan activities may include eBook reading assignments, and review, practice, and enrichment activities.

After students complete the enrichment activities, they take a posttest to see the concepts they’ve mastered or areas where they still may need extra help.

MyEducationLab then reports the Study Plan results to the instructor. Based on these reports, the instructor can adapt course material to suit the needs of individual students or the entire class.

**Assignments and Activities**

Designed to enhance students’ understanding of concepts covered in class, these assignable exercises show concepts in action (through videos, cases, and/or student and teacher artifacts). They help students deepen content knowledge and synthesize and apply concepts and strategies they have read about in the book. (Correct answers for these assignments are available to the instructor only.)

**Building Teaching Skills and Dispositions**

These unique learning units help students practice and strengthen skills that are essential to effective teaching. After examining the steps involved in a core teaching process, students are given an opportunity to practice applying this skill via videos, student and teacher artifacts, and/or case studies of authentic classrooms. Providing multiple opportunities to practice a single teaching concept, each activity encourages a deeper understanding and application of concepts, as well as the use of critical thinking skills. After practice, students take a quiz that is reported to the instructor gradebook and performance reporting.
A+RISE activities provide practice in targeting instruction. A+RISE®, developed by three-time Teacher of the Year and administrator, Evelyn Arroyo, provides quick, research-based strategies that get to the “how” of targeting instruction and making content accessible for all students, including English language learners.

A+RISE® Standards2Strategy™ is an innovative and interactive online resource that offers new teachers in grades K-12 just in time, research-based instructional strategies that:

- Meet the linguistic needs of ELLs as they learn content
- Differentiate instruction for all grades and abilities
- Offer reading and writing techniques, cooperative learning, use of linguistic and nonlinguistic representations, scaffolding, teacher modeling, higher order thinking, and alternative classroom ELL assessment
- Provide support to help teachers be effective through the integration of listening, speaking, reading, and writing along with the content curriculum
- Improve student achievement
- Are aligned to Common Core Elementary Language Arts standards (for the literacy strategies) and to English language proficiency standards in WIDA, Texas, California, and Florida.

The Grammar Tutorial provides content extracted in part from The Praxis Series™ Online Tutorial for the Pre-Professional Skills Test: Writing. Online quizzes built around specific elements of grammar help users strengthen their understanding and proper usage of the English language in writing. Definitions and examples of grammatical concepts are followed by practice exercises to provide the background information and usage examples needed to refresh understandings of grammar, and then apply that knowledge to make it more permanent.

The Children’s and Young Adult Literature Database offers information on thousands of quality literature titles, and the activities provide experience in choosing appropriate literature and integrating the best titles into language arts instruction.

Course Resources

The Course Resources section of MyEducationLab is designed to help you put together an effective lesson plan, prepare for and begin your career, navigate your first year of teaching, and understand key educational standards, policies, and laws.

It includes the following:

- The Lesson Plan Builder is an effective and easy-to-use tool that you can use to create, update, and share quality lesson plans. The software also makes it easy to integrate state content standards into any lesson plan.
- The Certification and Licensure section is designed to help you pass your licensure exam by giving you access to state test requirements, overviews of what tests cover, and sample test items.
The Certification and Licensure section includes the following:

- **State Certification Test Requirements**: Here, you can click on a state and will then be taken to a list of state certification tests.
- You can click on the **Licensure Exams** you need to take to find:
  - Basic information about each test
  - Descriptions of what is covered on each test
  - Sample test questions with explanations of correct answers

- **National Evaluation Series™ by Pearson**: Here, students can see the tests in the NES, learn what is covered on each exam, and access sample test items with descriptions and rationales of correct answers. You can also purchase interactive online tutorials developed by Pearson Evaluation Systems and the Pearson Teacher Education and Development group.

- **ETS Online Praxis Tutorials**: Here you can purchase interactive online tutorials developed by ETS and by the Pearson Teacher Education and Development group. Tutorials are available for the Praxis I exams and for select Praxis II exams.

Visit www.myeducationlab.com for a demonstration of this exciting new online teaching resource.

**Supplements for Instructors and Students for the Eleventh Edition**

The following resources are available for instructors to download on www.pearsonhighered.com/educators. Instructors enter the author or title of this book, select this particular edition of the book, and then click on the “Resources” tab to log in and download textbook supplements.

- **Instructor’s Resource Manual and Test Bank** (0-13-337625-7). The Instructor’s Resource Manual and Test Bank includes a wealth of interesting ideas and activities designed to help instructors teach the course. Each chapter includes a chapter-at-a-glance grid, the chapter purpose, underlying concepts, student objectives, vocabulary and key terms, activities and discussion questions, MyEducationLab extension activities, plus test questions for each chapter.

- **PowerPoint Slides** (0-13-338590-6). Ideal for lecture presentations or student handouts, the PowerPoint presentation provides dozens of ready-to-use graphic and text images.

- **MyEducationLab Correlation Guide** (0-13-338593-0). This guide connects chapter sections with appropriate assignable exercises on MyEducationLab.com.

- **TestGen** (0-13-337624-9). *TestGen* is a powerful test generator that instructors install on a computer and use in conjunction with the *TestGen* test bank file for this text. Assessments may be created for both print and online testing. *TestGen* is available exclusively from Pearson Education publishers. Instructors install TestGen on a personal computer (Windows or Macintosh) and create tests for classroom testing and for other specialized delivery options, such as over a local area network or on the web. A test bank, which is also called
a Test Item File (TIF), typically contains a large set of test items, organized by chapter and ready for use in creating a test, based on the associated textbook material.

Acknowledgments

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Effective teachers show students how to think, learn, and communicate with all kinds of texts.

In many ways, the universe serves as a metaphor for the human mind. It is never ending, ever expanding, and unfathomable. So is the human mind. Literacy has a powerful impact on the meaning-making and learning that takes place in the universe of our minds. Through literacy, we begin to see, to imagine, to comprehend, and to think more deeply about images and ideas encountered in all kinds of texts. When it comes to learning in content areas, literacy matters. All teachers have a critical role to play in showing students how to use literacy skills and strategies in their disciplines. Literacy is an evolving concept that changes with society over time. Perhaps it’s best to think of literacy in terms of the multiple literacies that we use to make and communicate meaning. In this book, we explore how to support students’ literacies by helping them make and communicate meaning with the various kinds of literacies.
texts—both print and digital—they use in content areas.

Our primary emphasis throughout this book is on reading and writing to learn in middle and high school. Unfortunately, many adolescent learners struggle with academic texts. One of the realities facing teachers across all content areas is that many students make little use of reading and writing as tools for thinking and learning. They either read or write on a superficial level or find ways to circumvent literacy tasks altogether. All too often, adolescent learners give up on reading with the expectation that teachers will impart information through lecture, demonstration, and class discussion. When students become too dependent on teachers as their primary source of information, they are rarely in a position to engage actively in literacy to learn.

This need not be the case. The organizing principle of this chapter underscores the dynamic relationship between literacy and learning: Effective teachers show students how to think, learn, and communicate with all kinds of texts.

Study the Chapter Overview. It’s your map to the major ideas that you will encounter in the chapter. The graphic display shows the relationships that exist among the concepts you will study. Use it as an organizer. What is the chapter about? What do you know already about the content to be presented in the chapter? What do you need to learn more about?

In conjunction with the Chapter Overview, take a moment or two to study the Frame of Mind questions. This feature uses key questions to help you think about the ideas that you will read about. When you finish reading, you should be able to respond fully to the Frame of Mind questions.
Frame of Mind

1. What is the difference between content and process knowledge?
2. What are the characteristics of effective teaching?
3. How do the Common Core State Standards impact literacy and learning in content areas?
4. Why is differentiated instruction an important aspect of content literacy and learning?
5. What are new literacies and how are they changing the way we think about learning and literacy in the twenty-first century?
6. What is adolescent literacy and why is it important to twenty-first century society?
7. How are content literacy and disciplinary literacy alike? How are they different?
8. What comprehension strategies are critical to reading? What role does prior knowledge play in comprehension?

There are no pat formulas for teachers who want students to develop core concepts and good habits of thinking within a discipline. Nor are there magic potions in the form of instructional strategies that will make a difference with all students, all the time. Teaching is a problem-solving activity: There’s just you, the academic texts and instructional strategies that you use, and the students whose lives you touch in the relatively brief time that they are under your wing. Teaching is a daunting but immensely rewarding enterprise for those who are up to the challenge.

Highly effective content area teachers plan lessons that are engaging. These teachers recognize that “engaging the disengaged” is not an easy task. Yet they continually strive to make learning intellectually challenging for the students they are teaching. A top instructional priority, therefore, is to involve students actively in learning the important ideas and concepts of the content they are studying. But the effective teacher also knows that an intellectually challenging instructional environment engages students not only in the acquisition of content but also in the thinking processes by which they learn that content.

No wonder the classroom is like a crucible, a place where the special mix of teacher, student, and text come together to create wonderfully complex human interactions that stir the minds of learners. Some days, of course, are better than others. The things that you thought about doing and the classroom surprises that you didn’t expect fall into place. A creative energy imbues teaching and learning.

Sometimes, however, lessons limp along. Others simply bomb—so you cut them short. The four or so remaining minutes before the class ends are a kind of self-inflicted wound. Nothing is more unnerving than waiting for class to end when students don’t have anything meaningful to do.
Consider a high school science teacher’s reflection on the way things went in one of her chemistry classes. “Something was missing,” she explains. “The students aren’t usually as quiet and passive as they were today. Excuse the pun, but the chemistry wasn’t there. Maybe the text assignment was too hard. Maybe I could have done something differently. Any suggestions?”

This teacher’s spirit of inquiry is admirable. She wants to know how to improve her teaching—how to engage students in learning the important concepts of her chemistry course and how to involve them in thinking like scientists.

Effective Teaching in Content Areas

Like all good teachers, the chemistry teacher in the preceding example cares about what she does and how she does it. Content and process, after all, are two sides of the same instructional coin. She knows a lot about the what of instruction—the content of chemistry—and how to teach that content in ways that develop important ideas and concepts in an intellectually challenging instructional environment. A strong attraction to academic content is one of the reasons teachers are wedded to a particular discipline. Yet it is often much more difficult to teach something than to know that something: “The teacher of the American Revolution has to know both a great deal about the American Revolution and a variety of ways of communicating the essence of the American Revolution to a wide variety of students, in a pedagogically interesting way” (Shulman, 1987, p. 5).

Teaching is complicated. There are no short-cuts to effective teaching in content areas. Often, what to teach (content) and how to teach it (process) represent nagging problems for today’s teachers. On one hand, researchers have shown that subject matter mastery is essential for effective teaching (Allen, 2003; Sanders, 2004; Walsh & Snyder, 2004). Indeed, a strong connection exists between teachers’ content knowledge preparation and higher student achievement.

The Educational Testing Service (ETS) study How Teaching Matters (Wenglinski, 2000) concluded, not surprisingly, that teachers’ content knowledge is an important factor in student achievement. Content counts! Student achievement, for example, increases by 40 percent of a grade level in both mathematics and science when teachers have a major or minor in the subject. However, the study also concluded that content knowledge alone is not the only factor necessary to help increase student achievement. Indeed, the classroom instructional practices and strategies of teachers significantly influence student achievement. The study found that students who engage in active, hands-on learning activities and respond to higher-order thinking questions outperform their peers by more than 70 percent of a grade level in mathematics and 40 percent in science. In addition, the study showed that students whose teachers have received professional development training in working with special populations outperform their peers by more than a full grade level. The findings of the ETS study indicate that greater attention, not less, needs to be paid to improving the pedagogical knowledge of teachers and the classroom aspects of teacher effectiveness.
What Makes a Teacher Effective?

The U.S. Department of Education (2010), as well as the National Council on Teacher Quality (2011), readily acknowledges that the “most important factor” in student success is the teacher. When students have access to effective teachers in the classroom, achievement gaps not only can narrow, but students will approach literacy and learning tasks with purpose and enthusiasm. Realistically, however, even in classrooms where teachers are practicing their craft effectively, some students will zone out from time to time or become sidetracked with other matters. Ball and Forzani (2010) put it this way in describing the difference between a tutor working one-on-one with a learner and a teacher working with an entire class of learners:

Not only do teachers have more learners to understand and interact with, but they also must design and manage a productive environment in which all are able to learn. One student requires a firm hand and a great deal of direction whereas another works best when left to puzzle further on his own. One student is active—tapping her pen, doodling, and rocking on her chair—even while deeply engaged whereas a second is easily distracted (p. 42).

Yet in the presence of an effective teacher most learners will tune in to what they are studying in the classroom—and stay tuned in. With today’s focus on educational reform, teacher effectiveness is closely tied to student achievement. An effective teacher has been defined as one whose students’ growth is equivalent to at least one grade level in an academic year (U.S. Department of Education, 2009). An alternative measure suggested by school reformers for determining teacher effectiveness includes classroom observations of teachers working with learners. (Reform Support Network, 2011). Linda Darling-Hammond (2009) expands the notion of teacher effectiveness beyond how well students perform on achievement measures. She suggests that it is important to keep in mind the distinction between teacher quality and teaching quality. She defines teacher quality as the traits, understandings, and characteristics an effective teacher brings to instruction, including the following:

- Strong general intelligence and verbal ability that help teachers organize and explain ideas, as well as to observe and think diagnostically
- Strong content knowledge
- Knowledge of how to teach others . . . in particular, how to use hands-on learning techniques and how to develop higher-order thinking skills
- An understanding of learners and their learning and development—including how to assess and scaffold learning, how to support students who have learning differences or difficulties, and to support the learning of language and content for those who are not already proficient in the language of instruction
- Adaptive expertise that allows teachers to make judgments about what it is like to work in a given context in response to student needs (Darling-Hammond, 2009, p. 2)

Teaching quality, on the other hand, has more to do with the context of instruction. Quality teaching enables a teacher to meet the demands of a discipline and to provide “strong instruction” that allows a wide range of students to learn. Pearson and Hoffman (2011) also discuss teaching quality and strong instruction from the perspective of what it means to be a practicing teacher. They describe practicing teachers as thoughtful, effective, pragmatic, and reflective. In the classroom, the actions of a practicing
teacher are guided by ten general “principles of practice” associated with teaching quality. Effective teachers reflect and are guided by these principles in their daily work in the classroom. These principles of practice are summarized in Table 1.1.

Higher levels of student achievement, Pearson and Hoffman (2011) contend, will not result from mandated standards or high-stakes testing alone. While standards and high-stakes assessment are an integral part of today’s educational landscape, practicing teachers, who know how to balance content and process in a standards-based curriculum, are the real game changers in the education of twenty-first century learners.

Table 1.1 Ten General Principles of Practice Associated with Quality Teaching

<table>
<thead>
<tr>
<th></th>
<th>Principle of Praxis: Effective teachers act on the understanding that education has the power to transform the individual and society.</th>
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<tbody>
<tr>
<td>2.</td>
<td>Principle of Purpose: Effective teachers operate in the moment guided by a clear understanding of why they are doing what they are doing. There is always a purpose behind their actions in the classroom.</td>
</tr>
<tr>
<td>3.</td>
<td>Principle of Serendipity: Although effective teachers engage in a variety of instructional practices, they “expect the unexpected” and are open to learning opportunities which may occur within the context of instruction.</td>
</tr>
<tr>
<td>4.</td>
<td>Principle of Exploration: Effective teachers are continually exploring new practices and making changes in their practices based on their exploration of instructional possibilities in classroom.</td>
</tr>
<tr>
<td>5.</td>
<td>Principle of Reflection: Effective teachers think about the what, how, and why of instruction during and after teaching activity. They engage in the process of reflection to solve instructional problems and set goals.</td>
</tr>
<tr>
<td>6.</td>
<td>Principle of Community: Effective teachers share their classroom knowledge and experiences within and across multiple professional communities as a means of growing professionally and giving back.</td>
</tr>
<tr>
<td>7.</td>
<td>Principle of Service: Effective teachers serve the learners in their classrooms and their parents.</td>
</tr>
<tr>
<td>8.</td>
<td>Principle of Flexibility: Effective teachers plan instruction but are flexible in the implementation of lessons. They adapt to unanticipated events or responses in ways that make learning possible.</td>
</tr>
<tr>
<td>9.</td>
<td>Principle of Caring: Effective teachers care about the learners in their classroom, the disciplinary content that they teach, and the literacy processes they use to make a difference in the lives of students. Caring is necessary to build relationships essential to the teaching/learning transaction.</td>
</tr>
<tr>
<td>10.</td>
<td>Principle of Reward: Effective teachers find satisfaction and reward in what they do for their students; they value the spontaneity of classroom life, the immediacy of the classroom, the learning they are a part of, and the autonomy of making instructional decisions.</td>
</tr>
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Effective Teachers and the Common Core State Standards

Literacy and learning are challenges in today’s classrooms, where the demands inherent in the teaching of content standards can easily lead to “covering” information without much attention given to how students with a wide range of skills and abilities acquire core concepts. Balancing content and process in a standards-based curriculum means at the very least:

• Knowing the standards for your content area and grade level
• Making instructional decisions based on authentic assessments throughout the school year about students’ abilities to use reading and writing to learn
• Integrating content literacy practices and strategies into instructional plans and units of study

Standards, in a nutshell, are expected academic consequences defining what students should learn and how they should learn it at designated grade levels and in content areas. Since the mid-1990s, a proliferation of state standards have provided a road map to what students should know and be able to do at each grade level and for each content area.

The underlying rationale for the creation of standards is that high learning expectations—clearly stated and specific in nature—will lead to dramatic increases in student achievement. With high learning expectations comes an accountability system based on “high-stakes” testing to determine how well students meet the standards formulated in each content area. Some states tie high-stakes assessment to the threat of grade-level retention for students who perform below predetermined levels of proficiency in critical areas such as reading. We explore in more detail the nature of high-stakes assessment, and explore the types of authentic assessments to improve learning, in Chapter 4.

The United States, unlike most countries, does not have a set of national education standards. Individual states have sole responsibility for determining what teachers should teach and students learn. However, the National Governors Association and the Council of Chief State School Officers recently released the Common Core State Standards (CCSS) for literacy and mathematics. According to the Common Core State Standards Initiative (2010):

The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy (p. 11).

The Common Core, adopted by 45 of the 50 states at the time of this writing, is the closest the United States has come as a country to adopting a national curriculum. Because states will be working from the same core standards, the possibility for broadbased sharing of what works in the classroom has never been greater. Since the Common Core does not come with rigid guidelines concerning implementation, it provides local school flexibility to decide how to best implement the standards at various grade levels (Phillips and Wong, 2011).

One of the important dimensions of CCSS is the emphasis on literacy in all content areas. Phillips and Wong (2010) put it this way: “As the Common Core of Standards makes clear,
literacy skills cross subject-area boundaries but are not formally taught once students enter the middle grades . . . Think of literacy as the spine; it holds everything together. The branches of learning connect to it, meaning that all core content teachers have a responsibility to teach literacy (pp. 40–41).” The real potential of the Common Core from a literacy perspective is that it positions students to become more active in their use of literacy skills by discovering concepts and processes that lead to independent learning. To become literate in a content area, students must learn how to learn with texts. Integrating these thinking/learning processes into content instruction helps learners to better understand what they are reading about, writing about, talking about in classroom discussion, or viewing on a computer screen or video monitor. Weaving literacy into the fabric of disciplinary study does not diminish the teacher’s role as a subject matter specialist. Instead, reading, writing, talking, and viewing are tools that students use to learn with texts in content areas. Who’s in a better, more strategic position to show students how to learn with texts in a particular content area and grade level than the teacher who guides what students are expected to learn and how they are to learn it?

The CCSS Initiative creates high expectations for students to develop their ability to use literacy and language skills to learn in content areas. One of the ultimate goals of Common Core is that students will develop independent learning habits:

Students must read widely and deeply from among a broad range of high-quality, increasingly challenging literary and informational texts. Through extensive reading of stories, dramas, poems, and myths from diverse cultures and different time periods, students gain literacy and cultural knowledge as well as familiarity with various text structures and elements. By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success (Common Core State Standards Initiative, p. 35).

Another major goal of Common Core is that all learners will develop a strong knowledge base across the curriculum:

Students establish a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise.

They refine and share their knowledge through writing and speaking. They respond to the varying demands of audience, task, purpose, and discipline (Common Core State Standards Initiative, p. 35).

The CCSS Initiative is not without its critics. Tienken (2011), for example, fears that standardization of the curriculum may not meet the needs of a diverse population of U.S. students. Loveless (2011) contends that there is a disconnect between existing national “grade level” tests and CCSS expectations. Some critics argue that top-down mandates for curriculum change are often only vaguely related to day-to-day instruction. Such mandates ignore the professional expertise and thinking of teachers to determine the most effective instructional strategies and methods to teach their students (Lee, 2011). Successful implementation of CCSS will require ongoing professional development to support teachers as they learn how to integrate literacy strategies into their regular instructional routines. This will require a long-term time commitment in school districts where funding for professional development may be limited.
Despite some of the criticism leveled toward CCSS, many educators are hopeful that the Common Core will make a difference in the content knowledge and skills that learners will develop to be successful in college or in careers. Box 1.1, Voices from the Field, captures one teacher’s challenge as her school district engages in the implementation of Common Core standards.

Given the wide range of students that teachers encounter daily, differentiating instruction will be one of the keys to ensuring the successful implementation of the Common Core.

**BOX 1.1**

Voices from the Field

**Erin, Literacy Coach**

**Challenge**

The Common Core Standards will have a definite impact on how we teach and assess children in the very near future. The document itself is an all-encompassing and at times overwhelming framework of what best practices will look like in classrooms of the future. However, full implementation of the Common Core begins on the classroom level. This is where I come in.

Working for a large school district in a coach/administrator position can be challenging. Not only do you have to be concerned about following the district policy, understanding the curriculum, implementing your administration’s common goals but also working with a staff of people who all have their own educational philosophies that should be respected and considered. Keeping all those measures in check is what I do and as the link between administration and the front lines, I feel my job is essential. As such, the implementation of the Common Core Standards is a challenge, to say the least. Once implemented, the Common Core Standards will impact the teachers’ daily instruction in a substantial way. The teachers must be able to understand and use the standards in a very different way than they were used to working with our now defunct state standards. Common Core requires a shift in thinking that takes teachers away from teaching bullet points to teaching conceptually. For some of my teachers, that is a pretty big shift.

To complement the district’s vision of how Common Core should be implemented, I took a piece meal approach to professional development and met my share of challenges along the way.

**Strategy**

The standards are written so that skills and concepts can be vertically aligned across grade levels. They emphasize text complexity and writing across the curriculum. I decided to begin my professional development by showing how argumentative writing can be used in such a way. I showed my staff how the standards “grow up” at each grade level. Then we wrote rubrics based on how each grade level would approach teaching and assessing their standards. Next, we tried to work writing into each subject taught so that the students could practice this argumentative writing task. We had follow up meetings to discuss our successes and further opportunities with implementation. The process seemed to be effective: introduce the concepts, work actively with them, practice them in the classroom, and then provide follow up.

After we worked with writing, we switched to text. Common Core advocates a curriculum that is based on authentic understanding of complex texts. Helping my teachers move away from their “safe” and at times “scripted” text books was the first step of this process. We worked one afternoon in the library to create text sets for the concepts we would be working with in the following semester. The text sets were housed in the library so any teacher working with those concepts could use them. As with writing, we worked toward a vertical alignment and had critical conversations about the leveling and
Effective Teachers Differentiate Instruction for a Wide Range of Students

Although texts come with the territory, using them to help students acquire content doesn’t work well for many teachers. Teaching with texts is more complex than it appears on the surface. As we discuss in Chapter 3, today’s classrooms are more diverse than ever before. The wide range of differences is evident in the skills, interests, languages, cultural backgrounds, and funds of knowledge that learners bring to the classroom. Whether you’re a novice or a veteran teacher, effective instruction requires the use of differentiated learning strategies and a willingness to move beyond assigning and telling when using texts in the classroom.

Think back to when you were middle or high school students. You probably had teachers who used an instructional strategy for teaching with text that included the following: Assign a text to read (usually with questions to be answered for homework) then, in subsequent lessons, tell students what the material they read was about, explaining and elaborating on the ideas and information in the text through lecture and question-and-answer routines. The interaction between teacher and students no doubt involved calling on a student to answer a question, listening to the student’s response, and then evaluating or modifying the student’s response. An assign-and-tell instructional strategy, more often than not, squelches active involvement in learning and denies students ownership of and responsibility for the development of core concepts and processes. Teachers place themselves, either by design or by circumstance, in the unenviable position of dispensing knowledge rather than helping learners to construct knowledge. When teachers become dispensers of knowledge with little attention given to how learners acquire that knowledge, students soon become nonparticipants in the academic life of the classroom.

An effective teacher plans instruction and organizes learning opportunities for students so that they will engage actively in developing the core concepts and processes underlying a discipline. Planning is the key to differentiated learning. On the website of Carolyn Tomlinson, one of the leading experts on differentiated instruction, she characterizes differentiation as “responsive teaching” (www.differentiationcentral.com, retrieved March 17, 2012). She...
explains that it involves preparing in advance for a variety of student needs in order to maximize student learning.

Ongoing formative assessment, a topic we discuss in Chapter 4, allows teachers to make adjustments in their instructional approaches to meet the skill needs, interests, and learning styles of their students. Planning instruction, as we show in Chapter 5, allows teachers to organize learning in ways that will meet the needs of a wide range of students. Differentiating learning through a variety of texts and instructional strategies, which is the main thrust of this book, will actively engage all students in literacy and learning. To use texts and instructional strategies effectively in mixed-ability classrooms, we must first be aware of the powerful bonds that link literacy and learning in a discipline. Let’s begin by taking a closer look at some of the meanings attached to the term literacy.

**Literacy in the Twenty-first Century**

To better understand what it means to be literate in a discipline, we need to first examine some of the ways the term literacy has been used in our twenty-first-century, techno-savvy, media-driven society. Literacy is a dynamic concept that is continually evolving. In the United States and other technologically advanced countries, becoming literate carries with it strong cultural expectations. Society places a premium on literate behavior and demands that its citizens acquire literacy for personal, social, academic, and economic success. But what does it actually mean to be literate in the twenty-first century?

The meaning of literacy often fluctuates from one social context to another and from one group to another. For example, the term computer literacy has been used in recent times to describe the level of expertise and familiarity someone has with computers and computer applications. Digital literacy is often defined as the ability to use digital technology, communication tools, or networks to locate, evaluate, use, and create information. In today’s multimedia world, information literacy denotes the ability to identify, locate, and access appropriate sources of information to meet one’s needs. The broad definition of media literacy is even more encompassing in that it refers to someone’s ability to access, analyze, evaluate, and produce communication and information in a variety of media modes, genres, and forms. And in the health and wellness field, health literacy is a more specific type of information-based competence denoting someone’s ability to obtain, process, and understand the basic health information and services needed to make appropriate health decisions.

The above examples are but a few ways the term literacy has morphed to characterize someone’s level of knowledge or competence in a particular area or subject in a multimodal society. For centuries the most common use of the term literacy had been to denote one’s ability to read and write a language with competence. Today, however, the dynamic nature of literacy is such that it encompasses more than the ability to read and write black marks on a printed page. Literacy has come to represent a synthesis of language, thinking, and contextual practices through which people make and communicate meaning. Yet the more society evolves the more complex and multidimensional the concept of literacy becomes:

Today information about the world around us comes to us not only by words on a piece of paper but more and more through the powerful images and sounds of our multi-media culture. Although mediated
messages appear to be self-evident, in truth, they use a complex audio/visual “language” which has its own rules (grammar) and which can be used to express many-layered concepts and ideas about the world. Not everything may be obvious at first; and images go by so fast! If our children are to be able to navigate their lives through this multi-media culture, they need to be fluent in “reading” and “writing” the language of images and sounds just as we have always taught them to “read” and “write” the language of printed communications. (Thoman and Jolls, 2005, p. 8)

As notions of literacy expand with the times, so does the concept of text. Literate activity is no longer limited by conventional notions of text (Neilsen, 2006). Texts include not only print forms of communication but also nonprint forms that are digital, aural, or visual in nature. Texts in content area classrooms represent sets of potential meanings and signifying practices, whether the text is a novel in an English class, the instructional conversation that takes place about the novel, or the made-for-television movie based on the novel. Helping students to think and learn with all kinds of text is an important responsibility of the content area teacher. Johannes Gutenberg’s invention of movable type in the fifteenth century resulted in a revolution of ideas. Printed texts in the hands of the masses changed the face of literacy and learning in much the same way that multimodal information and communication technologies (ICT) are creating new literacies and new ways of learning.

**New Literacies, New Ways of Learning**

The potential for media and technology to make a difference in students’ literacy development and learning was evident in the early 1980s, when computers began to play an increasingly important role in classrooms. However, the digital technologies available three decades ago were primitive compared to today’s powerful technologies. Today’s adolescents represent the first generation of youth who have grown up since the emergence of digital technologies, video games, cell phones, instant messaging, and the World Wide Web. Because they are the first generation to be immersed in ICT for their entire lives, they have at their fingertips more information than any generation in history (Considine, Horton, & Moorman, 2009).

With continuously emerging ICT a reality in the twenty-first century, new literacies are necessary to use ICT effectively and to fully exploit their potential for learning (Kist, 2005; Leu, 2000). The new literacies are grounded in students’ abilities to use reading and writing to learn but require new strategic knowledge, skills, and insights to meet the conceptual and technological demands inherent in complexly networked environments. To be sure, the Internet is one of the most powerful ICT extant, and it depends on literacy.

Nevertheless, there are real differences between reading printed texts and reading texts in a digital medium. As Kist (2005, p. 5) explains, printed texts such as books are written for the reader to proceed from the front of the book to the back of the book, reading from left to right, “and most readers of a book will read the text with the order of the words coming in the same order for him or her as for every other reader of that book”. However, one reader on the Internet might click on a hyperlink that another online reader would not. As a result, the first online reader would then process the text in a completely different sequence from that of the second reader.

Reading texts in a digital environment is not a linear activity. New literacies, therefore, are crucial in the search for content area information on the Internet and other ICT. As Leu, Leu, and Coiro (2006, p. 1) point out, new literacies allow readers “to identify important questions,
navigate complex information networks to locate important information, critically evaluate that information, synthesize it to address those questions, and then communicate the answers to others. These five functions help to define the new literacies that your students need to be successful with the Internet and other information and communication technologies (ICT).”

What, then, are some of the classroom implications for the development of new literacies? First and foremost, teachers need to help students “learn how to learn” new technologies. From a new literacies perspective, knowing how to learn continuously changing technologies is more critical than learning any particular ICT. Moreover, teachers need to provide instructional support in the development and use of strategies that, among other things, help students critically read and evaluate information. According to Leu (2002, p. 314), learners will need to know how to put into play . . .

. . . new forms of strategic knowledge necessary to locate, evaluate, and effectively use the extensive resources available within complexly networked ICT such as the Internet. The extent and complexity of this information is staggering. . . . How do we best search for information in these complex worlds? How do we design a Web page to be useful to people who are likely to visit? How do we communicate effectively with videoconference technologies? Strategic knowledge is central to the new literacies.

A teacher should not automatically assume that today’s adolescents already are strategic in their use of ICT for academic purposes. The extensive use of ICT by adolescents in social and personal contexts often creates a false sense of competence in an academic context. As Considine, Horton, and Moorman (2009, p. 472) put it, “hands-on is not the same as heads-on” when it comes to making assumptions about how effectively adolescents use ICT to learn.

Print resources, such as textbooks and trade books, in combination with digital texts, sounds, and images create powerful learning environments in an academic discipline. Learning with new literacies, which we will explore in Chapter 2, involves many of the same thinking processes that print forms of text involve. However, teachers who work with adolescent learners in middle and high school may find that some, if not many, of their students struggle with assignments that require thinking and learning with academic text in print or nonprint forms. No wonder adolescent literacy is a hot topic in education today (Cassidy & Cassidy, 2009). Let’s take a closer look at the concept of adolescent literacy and its implications for thinking and learning with texts.

Adolescent Literacy

According to Bob Wise (2009), president of the Alliance for Excellent Education and a former governor of West Virginia, adolescent literacy is the cornerstone of students’ academic success. The literacy learning that takes place in adolescents is of critical importance in preparing them for life in and out of school. The Commission on Adolescent Literacy of the International Reading Association (IRA) asserts that . . .

. . . adolescents entering the adult world in the 21st century will read and write more than at any other time in human history. They will need advanced levels of literacy to perform their jobs, run their households, act as citizens, and conduct their personal lives. They will need literacy to cope with the flood of information they will find everywhere they turn. They will need literacy to feed their imaginations so they
can create the world of the future. In a complex and sometimes even dangerous world, their ability to read will be crucial. Continual instruction beyond the early grades is needed. (Moore, Bean, Birdyshaw, & Rycik, 1999, p. 3)

In the early grades of elementary school, many students learn basic skills related to reading and writing; however, by fourth grade and on, they need to continue to develop skill and sophistication in the use of literacy strategies and practices specific to different disciplines, texts, and situations. As the emphasis on disciplinary learning increases in middle and high schools, adolescents must develop both confidence in themselves and the thinking processes necessary for academic success in various content areas. Ironically, adolescents often experience difficulty with disciplinary literacy and learning, even though they may regularly use literacies for social purposes outside of school in ethnic, online, and popular culture communities (Moje, 2007).

Since 1992, when periodic National Assessment of Education Progress (NAEP) surveys in reading began for students in grades four, eight, and 12, it has become evident that there is an adolescent literacy crisis in the United States (Alliance for Excellent Education, 2006; Kamil, 2003; Vacca, 1998; Vacca & Alvermann, 1998). Few would argue with the importance of early reading development. Yet the emphasis on learning to read in the primary grades in the United States has served to magnify the lack of attention and commitment given to adolescent learners and their literacy needs.

From a historical perspective, the literacy needs of middle and high school students have received marginal attention by policy makers and curriculum planners. In the latter half of the twentieth century, students who struggled with reading often were identified as “remedial readers” and were assigned to “reading labs” or “remedial reading” classes, where they typically received piecemeal instruction apart from the content areas. As Vacca and Alvermann (1998) indicated, there has been an apparent lack of a national policy and school wide commitment for the ongoing literacy development of learners beyond the primary grades. Recently, however, there have been positive initiatives taking place focusing on the literacy needs of adolescents.

In a landmark report entitled *Reading Next*, Biancarosa and Snow (2004) address the current state of adolescent literacy and identify fifteen critical elements of effective adolescent literacy programs. These elements are highlighted in Box 1.2. In addition, a 2005 federal initiative, the Striving Readers program, provides competitive, discretionary grants to school districts to raise the reading achievement levels of middle and high school-aged students in Title I-eligible schools with significant numbers of students reading below grade level. One of the goals of the Striving Readers program is to enhance reading achievement in middle and high schools through improvements to the quality of literacy instruction across the curriculum.

Teaching adolescents is no easy task. Their lives are complex. Not only are they undergoing great physical changes, but they also are faced with ongoing cognitive, emotional, and social challenges. Adolescents who struggle with literacy in academic disciplines often go through the motions of reading without engaging in the process. Even skilled adolescent readers will struggle with reading sometimes, in some places, with some texts. Some students may lack the prior knowledge needed to connect to important ideas in the text. Others may get lost in the author’s line of reasoning, become confused by the way the text is organized, or run into unknown words that are difficult to pronounce, let alone define. Often comprehension problems are only temporary. However, the difference between proficient adolescent readers and those who struggle all the time is this: When proficient readers struggle with text, they know what to do to get out of trouble. They have confidence in themselves as readers and learners. When
When a text becomes confusing or doesn’t make sense, good readers recognize that they have an array of skills and strategies that they can use to work themselves out of difficulty.

Average and above-average adolescent learners, who are usually on track to go to college, might also struggle with reading without their teachers being cognizant of it. Often these students feel helpless about their ability to engage in academic literacy tasks, but go through the motions of “doing” school. Since 1992 periodic national assessments of reading conducted by the National Center for Education Statistics (NCES) show that the majority of U.S. students in grades four, eight, and 12 have obtained, at best, only “basic” levels of literacy. These NAEP surveys for reading (NAEP, 2007) reveal that the vast majority of adolescent learners in grades four and eight have difficulty with complex literacy tasks. For example, they may be able to read with some degree of fluency and accuracy but might not know what to do with text beyond saying the words and comprehending at what is essentially a literal level of performance. In the classroom, these students may appear skillful in the mechanics of reading but aren’t strategic enough in their abilities to handle reading tasks that require interpretation and critical thinking. Throughout this book we explore the role of motivation in the academic lives of adolescents who struggle with school-based literacy even though they are likely to use new literacies outside of school for personal and social purposes (Lenters, 2006; Moje, 2007; Moje, Overby, Tysvaer, & Morris, 2008).

The terms content literacy and disciplinary literacy are frequently used to describe a discipline-centered instructional approach to literacy and learning in content area classrooms. From our perspective, content literacy and disciplinary literacy reflect many of the same instructional attributes, although critics of content literacy pedagogy claim some real differences between the two approaches to literacy and learning (Draper, 2008; Moje, 2007, 2008). In the next section, we explore the common ground between content literacy and disciplinary literacy and discuss how the two concepts may differ in terms of teaching practices.

**Content Literacy and Disciplinary Literacy in Perspective**

For many years, the term content area reading was associated with helping students better understand what they read across the curriculum. However, the concept of content area reading was broadened in the 1990s to reflect the inclusive role language plays in learning with texts. Hence, the relatively new construct of content literacy refers to the ability to use reading, writing, talking, listening, and viewing to learn subject matter in a given discipline (Vacca, 2002a). Content literacy involves the use of research-based cognitive learning strategies designed to support reading, writing, thinking, and learning with text. Most recently, the concept of disciplinary literacy is having an impact on the way researchers and educators think about literacy and learning in content areas (Buehl & Moore, 2009; Lee, 2004; Moje, 2007, 2008; Shanahan & Shanahan, 2008).

William S. Gray, one of the early titans in the field of reading, articulated the relationship between reading and learning that remains today the underlying rationale for reading in content areas. Not only did he forge the beginnings of content area reading, but he is also credited with what has become an often used, and often confused, mantra in education, “Every teacher is a teacher of reading.” More than eighty-five years ago, Gray (1925) published one of the first descriptive studies to identify reading and study skills by content area. He determined that each content area requires different sets of skills for effective reading and study of text material.
These different skill sets are related to one’s purpose for reading and the conceptual demands of the text.

Many other researchers in the 1940s, 1950s, and 1960s designed “content-centered” studies to investigate the effectiveness of guiding students’ reading within the context of disciplinary

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**Evidence-Based Best Practices**

**Fifteen Elements of Effective Adolescent Literacy Programs**

*Reading Next*, a report to Carnegie Corporation of New York, provides a “vision for action and research” in the development of adolescent literacy programs. The report delineates fifteen elements for improving middle and high school literacy achievement.

1. **Direct, explicit comprehension instruction**, which is instruction in the strategies and processes that proficient readers use to understand what they read, including summarizing, keeping track of one’s own understanding, and a host of other practices

2. **Effective instructional principles embedded in content**, including language arts teachers using content-area texts and content-area teachers providing instruction and practice in reading and writing skills specific to their subject area

3. **Motivation and self-directed learning**, which includes building motivation to read and learn and providing students with the instruction and supports needed for independent learning tasks they will face after graduation

4. **Text-based collaborative learning**, which involves students interacting with one another around a variety of texts

5. **Strategic tutoring**, which provides students with intense individualized reading, writing, and content instruction as needed

6. **Diverse texts**, which are texts at a variety of difficulty levels and on a variety of topics

7. **Intensive writing**, including instruction connected to the kinds of writing tasks students will have to perform well in high school and beyond

8. A **technology component**, which includes technology as a tool for and a topic of literacy instruction

9. **Ongoing formative assessment of students**, which is informal, often daily assessment of how students are progressing under current instructional practices

10. **Extended time for literacy**, which includes approximately two to four hours of literacy instruction and practice that takes place in language arts and content-area classes

11. **Professional development** that is both long term and ongoing

12. **Ongoing summative assessment of students and programs**, which is more formal and provides data that are reported for accountability and research purposes

13. **Teacher teams**, which are interdisciplinary teams that meet regularly to discuss students and align instruction

14. **Leadership**, which can come from principals and teachers who have a solid understanding of how to teach reading and writing to the full array of students present in schools

15. **A comprehensive and coordinated literacy program**, which is interdisciplinary and interdepartmental and may even coordinate with out-of-school organizations and the local community

instruction. Harold Herber (1964), for example, developed “guide materials” to assist high school physics students in the development of core concepts in their textbook. He found that the students who used “study guides” to read physics text significantly outperformed those students who did not use guides to read the content under study. Herber (1970) later wrote the first comprehensive textbook, *Teaching Reading in Content Areas*, exclusively devoted to content area reading instruction. The guiding principle underlying Herber’s book is as powerful today as it was over forty years ago: *Content determines process*. Even though the majority of students learn how to read in elementary school with some degree of proficiency, they must learn how to adapt reading and thinking strategies to meet the peculiarities and conceptual demands of each discipline they study. The shift from skills to learning strategies was first felt in the 1970s and 1980s when numerous research studies were conducted to better understand the role of thinking and learning processes in reading and to validate learning strategies grounded in cognitive principles (Conley, 2008).

Content literacy and disciplinary literacy are extensions of the concept of content area reading, where “content determines process” in a given discipline. The underlying goal of a discipline-specific approach to literacy is to show students how to think and learn with text as they develop a deep understanding of concepts and ideas encountered in texts. Each discipline poses its own challenges in terms of purposes for reading, vocabulary, concepts, texts, themes, and topics. How students read, think, and learn with text more than likely varies from content area to content area: “Even casual observation shows that students who struggle with reading a physics text may be excellent readers of poetry; the student who has difficulty with word problems in math may be very comfortable with historical narratives” (National Council of Teachers of English, 2008).

The big idea behind disciplinary literacy is that literacy development in a discipline is inextricably related to content knowledge and thinking. Doug Buehl (2009, p. 535), a longtime advocate of adolescent literacy and a former social studies teacher and literacy coach in Madison, Wisconsin, argues that middle and high school curricula must focus not only on what students should know and be able to do, but also on how “experts within a discipline read, write, and think”. He contends that content area teachers are sometimes frustrated by “generic literacy practices” encountered in professional development workshops that are not relevant to reading and learning in their disciplines.

Buehl (2009, p. 537) advocates for continued research on discipline-specific literacy practices, which seem “to be an especially fertile ground for determining how to mentor students to read, write, and think through the lens of a mathematician, biologist, musician, historian, artist, novelist, and so forth”. He cites a statewide project in Wisconsin called Thinking Like a Historian in which history teachers are encouraged to engage in questioning routines around five core themes crucial to thinking and learning with historical text:

2. Change and continuity: “What changed and what remained the same?”
3. Turning points: “How did events of the past affect the future?”
4. Through their eyes: “How did people in the past view their lives and world?”
5. Using the past: “How does studying the past help us understand our lives and world?”

(Wisconsin Historical Society, 2009)

In a similar vein, Lee (2004, p. 14) describes disciplinary literacy as “the ability to understand, critique, and use knowledge from texts in content areas”. She links disciplinary literacy
directly to the needs of culturally diverse adolescent readers who struggle with academic texts and suggests that an important dimension of a discipline-specific approach to literacy is to draw on adolescent learners’ “cultural funds of knowledge”—that is, the kinds of knowledge that culturally diverse students bring to learning situations. As we explain in Chapter 3, how teachers adjust instruction to the sociocultural strengths of students in diverse classrooms is an important aspect of literacy and learning in a discipline.

Moje (2007) provides a complex view of disciplinary literacy as she discusses some of the theory, research, and pedagogical practices supporting instructional approaches to disciplinary literacy. She describes one such approach found on the website of the Institute for Learning at the University of Pittsburgh (www.instituteforlearning.org/dl.html):

This approach to teaching and learning integrates academically rigorous content with discipline-appropriate habits of thinking. The driving idea is that knowledge and thinking must go hand in hand. To develop deep conceptual knowledge in a discipline, one needs to use the habits of thinking that are valued and used by that discipline. . . . The ultimate goal of Disciplinary Literacy is that all students will develop deep content knowledge and literate habits of thinking in the context of academically rigorous learning in individual disciplines. (Quoted in Moje, 2007, p. 10)

Others have called for a rethinking of the way literacy is embedded within various disciplinary-specific learning situations. For example, Shanahan and Shanahan (2008) conducted a descriptive research project in which they studied how disciplinary experts (university professors and classroom teachers) from mathematics, history, and chemistry engaged in reading to learn. In the first year of the project, the researchers adapted a pedagogical practice called “think-alouds” to identify the “specialized reading skills” used by the experts to comprehend texts in their respective disciplines. During the think-aloud sessions, the researchers discovered that “[e]ach of the disciplinary experts emphasized a different array of reading processes, suggesting the focused and highly specialized nature of literacy at these levels” (Shanahan & Shanahan, 2008, p. 49).

In the second year of the project, the teams of disciplinary experts studied the viability of generic literacy strategies and explored ways to develop instructional strategies that were discipline-specific. These strategies are similar in intent to the kinds of cognitive-based strategies found in this and other books dealing with literacy and learning across the curriculum. However, the teams of discipline-specific experts modified and adapted generic literacy strategies to meet the textual and conceptual demands inherent in their specific disciplines.

Whether you call it content area reading, content literacy, or disciplinary literacy, the guiding principle behind each instructional approach remains as powerful today as it has for nearly a century. Content determines process. The conceptual demands and structure of a discipline-specific text determines how a reader will interact with that text, make sense of it, and learn from it. As Kamil (2003) concluded, teaching literacy strategies has value for all teachers. However, a disciplinary literacy perspective reminds us that teachers, as subject matter specialists, must also have a solid understanding of the reading, writing, and thinking processes necessary to adapt and modify literacy strategies, tailoring them to meet the conceptual and textual demands of the content under study.

As recent National Assessments of Educational Progress (NAEP) show, far too many adolescents struggle with academic reading tasks (Lee, Grigg, & Donahue, 2007; Perie, Grigg, & Donahue, 2005). Many school districts have begun to use a tiered approach to intervention for students who significantly struggle with reading and learning. This approach, known as Response to Intervention (RTI), holds much promise for improving literacy and learning across
the curriculum. RTI underscores the importance of responsive teaching, assessment, and differentiated instruction in the academic lives of adolescents who struggle with reading. Throughout various chapters of this book, we will highlight RTI and the role it might play in helping students, especially adolescent learners, who struggle with text.

**Box 1.3 RTI for Struggling Adolescent Learners**

**Implications for Content Literacy**

What is Response to Intervention (RTI) and how does it affect the work of content area teachers? RTI is a relatively new, promising approach to providing the most appropriate instruction, service, and research-based strategy interventions to significantly struggling learners. In response to the growing number of students recommended for special education programs, a new version of the Individuals with Disabilities Education Act was passed in 2004. This act redefines the way students with learning disabilities are identified. Because previous protocols for special education referrals did not require students to have interventions within general education classrooms, it was often difficult to determine whether literacy-related learning problems were due to a student’s cognitive disabilities or to a lack of exposure to effective literacy instruction (Johnson, Mellard, Fuchs, & McKnight, 2006).

The goal of RTI, therefore, is to use school wide assessments to identify at-risk learners and to provide various levels of strategy interventions before students fall behind their peers. According to the National Research Center on Learning Disabilities (NRCLD), RTI is “an assessment and intervention process for systematically monitoring student progress and making decisions about the need for instructional modifications or increasingly intensified services using progress monitoring data” (Johnson, Mellard, Fuchs, & McKnight, 2006, p. 2). The International Reading Association (2008) describes RTI as a multi-tiered process that provides services and interventions to struggling learners at increasing levels of intensity.

In the RTI instructional framework, all stakeholders are expected to work collaboratively to make instructional decisions. Teachers, parents, literacy coaches, special education teachers, and additional staff members work together to determine the needs of each student and to plan and deliver appropriate instruction.

RTI is much more prevalent at the elementary school level than at middle and secondary levels. However, many middle and high schools have begun to implement RTI in their school districts. Although there are several RTI models to follow, a three-tier approach to strategy intervention is used in many school districts.

**Tier 1**

All students in Tier 1 receive high-quality, research-based instruction differentiated to meet their needs, and are screened periodically to identify struggling learners who need additional support. Content area teachers have an important role to play at this level of intervention. Throughout this book, we describe many potentially useful assessment procedures and literacy strategies grounded in cognitive theory and research that support and monitor students’ ability to learn with text.

**Tier 2**

Tier 2 provides targeted intervention for students who have not been successful in classroom learning situations and have not made adequate progress in core curriculum studies. Their progress is monitored frequently to determine whether strategy interventions have been successful. Content area teachers typically receive support, as needed, from literacy coaches and specialists to ensure that students “on the edge” are making adequate progress at their grade level. For example, in some RTI models,
students who are at risk of failure are assigned to tutoring centers within a school for more intensive instruction and support. Moreover, handheld electronic devices, which provide more intensive instructional programs for the 10 to 15 percent of students who are at Tier 2, are also being used within content area classrooms to prevent struggling adolescent learners from falling behind their peers.

**Tier 3**

At this level, students receive individualized, intensive interventions that target the students’ skill deficits for the remediation of existing problems and the prevention of more severe problems. Literacy specialists and special education personnel are responsible for providing Tier 3 interventions and work closely with classroom teachers.

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**Reading to Learn**

A variety of classroom-related factors influence reading to learn in a given discipline, including:

- The learner’s prior knowledge of, attitude toward, and interest in the subject
- The learner’s purpose for engaging in reading, writing, and discussion
- The vocabulary and conceptual difficulty of the text material
- The assumptions that the text writers make about their audience of readers
- The text structures that writers use to organize ideas and information
- The teacher’s beliefs about and attitude toward the use of texts in learning situations

Writers of texts communicate with readers in the same way that speakers use language to communicate with listeners, or filmmakers use sound and moving images to tell a story or communicate meaning to viewers. Teaching with textbooks or other types of written text involves more than assigning pages to be read, lecturing, or using questions to check whether students have read the material the night before. To use written texts strategically and effectively, you must first be aware of the powerful bonds between reading and knowledge construction. With this in mind, consider how reading to learn relates to meaning-making and text comprehension.

**The Role of Prior Knowledge in Reading**

In their book *A Good Teacher in Every Classroom*, Darling-Hammond and Baratz-Snowden (2005, pp. 2–3) argue that the conventional view of teaching is simplistic in that teaching is viewed as proceeding through a set curriculum in a manner that transmits information from teacher to student. Moreover, they contend that there is much more to teaching than knowing the subject matter that students should learn. Among the many classroom practices characteristic of effective teachers, they “carefully organize activities, materials, and instruction based on students’ prior knowledge . . . and engage students in active learning.”

Many of the literacy practices and strategies that you will learn about in this book will help you organize instruction around students’ prior knowledge and their active engagement.
in text-related activities. As a result, students will be in a better position to understand
the structure of your discipline and the important ideas and concepts underlying the subject
matter that you teach.

Not only do readers activate prior knowledge before reading but they also use prior knowl-
edge during and after reading to infer meaning and elaborate on the text content. Good readers
don’t just read to get the gist of what they are reading unless that is their specific purpose. They
use prior knowledge, as well as what they know (or think they know) about the text, to make
inferences, to evaluate, and to elaborate on the content. Why is this the case?

Cognitive scientists use the technical term schema to describe how people use prior knowl-
edge to organize and store information in their heads. Furthermore, schema activation is the
mechanism by which people access what they know and match it to the information in a text.
In doing so, they build on the meaning they already bring to a learning situation. Indeed, sche-
matas (the plural of schema) have been called “the building blocks of cognition” (Rumelhart,
1982) because they represent elaborate networks of information that people use to make sense
of new stimuli, events, and situations. When a match occurs between students’ prior knowledge
and text material, a schema functions in at least three ways.

First, a schema provides a framework for learning that allows readers to seek and select
information that is relevant to their purposes for reading. In the process of searching and select-
ing, readers are more likely to make inferences about the text. You make inferences when you
anticipate content and make predictions about upcoming material, or you fill in gaps in the
material during reading.

Second, a schema helps readers organize text information. The process by which you
organize and integrate new information into old facilitates the ability to retain and remember
what you read. A poorly organized text is difficult for readers to comprehend. We illustrate this
point in more detail when we discuss the influences of text structure on comprehension and
retention in later chapters.

Third, a schema helps readers elaborate information. When you elaborate what you have
read, you engage in a cognitive process that involves deeper levels of insight, judgment, and
evaluation. You are inclined to ask, “So what?” as you engage in conversation with an author.

Reading as a Meaning-Making Process

Language helps a learner to make sense of the world, to understand, and to be understood. As
a result, language and meaning cannot be severed from one another. Language isn’t language
unless meaning-making is involved. Oral language without meaning is mere prattle—a string
of senseless, meaningless speech sounds. Written language without meaning is a cipher of
mysterious markings on paper.

To be literate in content area classrooms, students must learn how to use reading to construct
knowledge in the company of authors, other learners, and teachers. Using reading in the classroom
to help students to learn doesn’t require specialized training on the part of content teachers, al-
though many of today’s middle and high schools employ literacy coaches (a topic discussed in
Chapter 12) to develop, support, and extend content area teachers’ use of literacy strategies.
Content literacy practices do not diminish the teacher’s role as a subject matter specialist. Instead,
reading is a tool students use to construct, clarify, and extend meaning in a given discipline.

Why are you able to read a text such as Lewis Carroll’s “Jabberwocky” with little trouble,
even though Carroll invents words such as chortled and toves throughout the poem? Try reading
“Jabberwocky” aloud:
JABBERWOCKY

'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe;
All mimsy were the borogoves,
And the mome raths outgrabe.

"Beware the Jabberwock, my son!
The jaws that bite, the claws that catch!
Beware the Jubjub bird and shun
The frumious Bandersnatch!"

He took his vorpal sword in hand:
Long time the manxome foe he sought—
So rested he by the Tumtum tree,
And stood awhile in thought.

And, as in uffish thought he stood,
The Jabberwock, with eyes of flame,
Came whiffling through the tulgey wood,
And burbled as it came!

One, two! One, two! And through and through
The vorpal blade went snicker-snack!
He left it dead, and with its head
He went galumphing back.

"And hast thou slain the Jabberwock?
Come to my arms, my beamish boy!
O frabjous day! Callooh! Callay!"
He chortled in his joy.

'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe;
All mimsy were the borogoves,
And the mome raths outgrabe.

What is quickly apparent from your reading of the poem is that going from print to speech is a hollow act unless meaning-making is involved in the transaction.

Try rewriting the poem using your own words. If you and a colleague or two were to compare your rewrites, you undoubtedly would find similarities in meaning, but also important differences. These differences undoubtedly reflect the knowledge of the world—prior knowledge—that you as a reader bring to the text as well as the strategies you used to make meaning.

Reading as a Strategic Process

Throughout this book, we argue that the real value of reading lies in its uses. Whether we use reading to enter into the imaginative world of fiction, learn with academic texts, meet workplace demands, acquire insight and knowledge about people, places, and things, or understand a
graphic on an Internet website, readers, to be successful, must use strategies to meet the demands of the task at hand.

For example, a skilled reader will approach the following passage as a challenge and use a repertoire of reading strategies to construct meaning.

**A PLAN FOR THE IMPROVEMENT OF ENGLISH SPELLING**

For example, in Year 1 that useless letter “c” would be dropped to be replaced either by “k” or “s,” and likewise “x” would no longer be part of the alphabet. The only case in which “c” would be retained would be the “ch” formation, which will be dealt with later. Year 2 might reform “w” spelling, so that “which” and “one” would take the same consonant, while Year 3 might well abolish “y” replacing it with “i” and Year 4 might fix the “gj” anomaly worse and for all.

Generally, then, the improvement would continue year by year with Year 5 doing away with useless double consonants, and Years 6–12 or so modifying vowel and the remaining voice and unvoiced consonants. By Year 15 or so, it would finally be possible to make use of the redundant letters “c,” “y” and “x”—by now just a memory in the minds of old people—by replacing “ch,” “sh,” and “th” respectively.

Finally, xen, after 30 years of revolutionary reform, we would have a logical, coherent spelling in our English-speaking world.

In order to comprehend text successfully, skilled readers must be able to decode or pronounce words quickly and accurately, read with fluency, activate vocabulary knowledge in relation to the language of the text, and put into play text comprehension strategies to understand what they are reading. As Figure 1.1 suggests, decoding, reading fluency, vocabulary, and comprehension are interrelated processes. If readers have trouble decoding words quickly and accurately (e.g., analyzing and recognizing sound–letter relationships), it will slow down their ability to read fluently in a smooth, conversational manner. Moreover, if they struggle to decode words accurately, various reading errors (e.g., mispronunciations, word omissions, and substitutions), if significant, will cause cognitive confusion and limit readers’ abilities to bring meaning and conceptual understanding to the words in the text.

When students lack decoding and fluency skills, the act of reading no longer becomes automatic. As you read “A Plan for the Improvement of English Spelling,” did the letter substitutions cause you to struggle as a reader? Perhaps. The progressive substitution of letters undoubtedly slowed down your ability to read in a smooth, conversational manner and may even have affected your accuracy in recognizing some words. Just think about some of the students in classrooms today who lack the ability to decode words accurately and read fluently. They may experience difficulty because they read in a slow and halting manner, word-by-word, and have trouble pronouncing words quickly and accurately. They spend so much time and attention on trying to “say the words” that comprehension suffers and, as a result, the reading process breaks down for them. Such students will benefit from direct, explicit instruction in decoding and fluency strategies from trained literacy specialists.

Our guess is that the reading process did not break down for you as you read the passage. Even though the substitution of letters slowed down your reading, chances are you were still able to comprehend the passage and construct meaning from it. This is because skilled readers do not use a single strategy to comprehend text. They know how to “think with print” as they

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*Although on the Internet this passage is widely attributed to Mark Twain, there is uncertainty as to its actual author.
search for and construct meaning from text. Skilled readers have at their command *multiple strategies* for comprehending text.

**Reading Comprehension**

When skilled readers have difficulty comprehending what they are reading, they often become *strategic* in the way they approach challenging and difficult text. That is to say, good readers have developed *skills* and *strategies* that they use to understand what they are reading. As Duke and Pearson (2002, p. 205) explain, we know a great deal about what good readers do when they read: “Reading comprehension research has a long and rich history . . . much work on the process of reading comprehension has been grounded in studies of good readers.” Table 1.2 delineates what good readers do when they engage in the process of comprehending text.

The research-based findings of two influential reports, *The Report of the National Reading Panel* (National Reading Panel, 2000) and the *RAND Report on Reading Comprehension* (RAND Reading Study Group, 2002), indicate that much is known about comprehension instruction. These reports, for example, draw several conclusions about effective comprehension instruction, including the following:

- Instruction can be effective in helping students develop a repertoire of strategies that promotes and fosters comprehension.
- Strategy instruction, when integrated into subject matter learning, improves students’ comprehension of text.
• Struggling readers benefit from *explicit instruction* in the use of strategies.
• Vocabulary knowledge is strongly related to text comprehension and is especially important in teaching English learners.
• Effective comprehension strategies include *question generation*, *question answering routines*, *comprehension monitoring*, *cooperative learning*, *summarizing*, *visual displays known as graphic organizers*, and knowledge of different *text structures*.
• Students benefit from exposure to different types or *genres* of texts (e.g., informational and narrative texts).
• Teachers who provide choices, challenging tasks, and collaborative learning experiences increase students’ motivation to read and comprehend texts.

### Table 1.2 What Do Good Readers Do When They Comprehend Text?

<table>
<thead>
<tr>
<th>Characteristics of Good Readers</th>
<th>Strategies of Good Readers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Good readers are:</strong></td>
<td><strong>Good readers:</strong></td>
</tr>
<tr>
<td>Active</td>
<td>Have clear <em>goals</em> in mind for their reading and evaluate whether the text, and their reading of it, is meeting their goals.</td>
</tr>
<tr>
<td>Purposeful</td>
<td><strong>Look over</strong> the text before they read, noting such things as the <em>structure</em> of the text and text sections that might be most relevant to their reading goals.</td>
</tr>
<tr>
<td>Evaluative</td>
<td><strong>Make predictions</strong> about what is to come.</td>
</tr>
<tr>
<td>Thoughtful</td>
<td><strong>Read</strong> selectively, continually making decisions about their reading—what to read carefully, what to read quickly, what not to read, what to reread, and so on.</td>
</tr>
<tr>
<td>Strategic</td>
<td><strong>Construct, revise, and question</strong> the meanings they make as they read.</td>
</tr>
<tr>
<td>Persistent</td>
<td>Try to determine the meanings of <em>unfamiliar words and concepts</em> in the text.</td>
</tr>
<tr>
<td>Productive</td>
<td><strong>Draw from, compare, and integrate their prior knowledge</strong> with material in the text.</td>
</tr>
<tr>
<td></td>
<td>Think about the <em>authors</em> of the text, their styles, beliefs, intentions, historical milieu, and so on.</td>
</tr>
<tr>
<td></td>
<td><strong>Monitor their understanding</strong> of the text, making adjustments in their reading as necessary.</td>
</tr>
<tr>
<td></td>
<td><strong>Evaluate the text’s quality and value</strong>, and react to the text in a range of ways, both intellectually and emotionally.</td>
</tr>
<tr>
<td></td>
<td><strong>Read different kinds of text differently.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Attend closely</strong> to the setting and characters when reading narrative.</td>
</tr>
<tr>
<td></td>
<td>Frequently <em>construct and revise summaries</em> of what they have read when reading expository text.</td>
</tr>
<tr>
<td></td>
<td>Think about text before, during, and after reading.</td>
</tr>
</tbody>
</table>

Throughout Part Two of this book, we will explore a variety of instructional practices that will help students comprehend discipline-specific texts more effectively. Some of these strategies will be useful and highly effective in your specific discipline; some may not. **Content determines process.** How teachers adapt instructional strategies to meet the conceptual demands and peculiarities of their disciplines will be the difference-maker in the literate lives of their students.

Describe the relationships among reader, text, and activity in the reading comprehension model described in Chapter 2 of the RAND report.

**Response Journal**

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Describe the relationships among reader, text, and activity in the reading comprehension model described in Chapter 2 of the RAND report.

**Response Journal**

In this chapter, we invited you to begin an examination of content literacy practices and the assumptions underlying those practices. Teachers play a critical role in helping students use literacy strategies to think and learn with text. Effective teachers make a difference in the literate lives of their students. Therefore, we made a distinction between **teacher qualities** and **teaching quality**. Teacher qualities are the characteristics associated with an effective teacher. Teaching quality, on the other hand, refers to the instructional context and the dynamics underpinning effective teaching in content areas. Effective teachers, for example, differentiate instruction for a wide range of students. Learning with all kinds of text, whether print or digital in nature, is an active process. In today’s standards-based educational environment, the pressure to teach content standards well can easily lead to content-only instruction with little attention paid to how students acquire information and develop concepts. The Common Core State Standards Initiative, however, is a step in the right direction. The Common Core acknowledges that teachers must balance content (what they teach) and process (how they teach) as they engage students in thinking and learning with all kinds of texts.

To this end, we explored the role that literacy plays in the acquisition of content knowledge. The concept of literacy must be viewed from a twenty-firstcentury perspective. In an era of digital media, many of today’s adolescents have developed “new literacies” that they use for personal and social purposes. New literacies are having a major influence on learning in academic contexts. To shift the burden of learning from teacher to student requires an understanding of the relationships among literacies, texts, and learning across the curriculum. As a result, we attempted to put content literacy and disciplinary literacy practices into perspective, contending that the two approaches to instruction share much common ground. Our emphasis throughout this book is on reading and writing to learn. Learning how to comprehend text across disciplines is what content area reading is all about.

The next chapter puts the spotlight on new literacies in the adolescent lives of twenty-firstcentury learners. Digital texts are highly engaging and interactive. New literacies make it possible to interact with text in ways not imaginable even a short while ago. Literacy-related learning opportunities in multimodal environments are interactive, enhance communication, engage students in multimedia, create opportunities for inquiry, and support socially mediated learning. Whether students are navigating the Internet or interacting with popular media such as video games, an array of learning experiences await them.

**Looking Back**

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**Minds On**

1. During a job interview, the principal of a middle school asks if you are “highly qualified” for the position. How would you respond?
2. Imagine that during lunch, several teaching colleagues comment that because many students in their courses “can’t read,” these teachers rarely use books. They argue that students learn content just as well through audiovisual aids and discussions. Divide a small group of six class members into two smaller groups of three: one representing the
teachers who believe books are unnecessary and one representing those who believe books are essential. For ten minutes, role-play a lunchtime debate on the pros and cons of using reading in content areas. After the time has elapsed, discuss the arguments used by the role players. Which did you find valid and with which did you disagree?

3. Your supervisor observes a lesson in which you use a large block of time for students to read. Afterward, the supervisor says that you should assign reading as homework, rather than “wasting” valuable class time. She adds that if you continue with lessons like this, your students will be lucky to finish one or two books over the entire year. Consequently, you request a meeting with the supervisor. What arguments might you bring to this meeting to help convince her of the validity of your approach?

4. Picture a science class of twenty-five students from very diverse backgrounds—different social classes, different ethnicities, and varying achievement levels. Many of the students struggle with text materials. Describe some classroom strategies you might use to respond to struggling readers while maintaining high standards of content learning.

5. Divide your group into two teams, one “pro” and one “con.” Review each of the following statements, and discuss, from your assigned view, the pros and cons of each issue.
   - a. We read to discover meaning (to understand), as much as we talk to communicate meaning to others (to be understood).
   - b. Students need to know the purpose for a text assignment if they are going to read effectively.
   - c. Reading strategies are so interrelated that knowledge of them is of little practical value for students.

**Hands On**

1. With a small group, examine the following well-known passage and attempt to supply the missing words. Note that all missing words, regardless of length, are indicated by blanks in the passage.

   Besides, Sir, we shall not fight our battles alone. There is a just God, who presides over the destinies of nations, who will raise up friends to fight our ________ for us. The battle, Sir, is not to the strong alone: it is to the vigilant, the active, the ________. Besides, Sir, we have no election. If we were base enough to desire it, it is now too late to retire from the contest.

   There is no ________, but in submission or slavery. Our chains are forged. Their ________ may be heard on the plains of Boston! The war is inevitable—and let it come—I repeat, Sir, let it come! It is in vain, Sir, to extenuate the matter. Gentlemen may cry, “Peace! Peace!” But there is no peace. The war has actually begun!

   The next gale that sweeps from the North will bring to our ears the clash of resounding ________. Our brethren are already in the field! Why stand we here idle? What is it that the Gentlemen wish? What would they have? Is life so ________, or peace too ________, as to be purchased at the price of chains and ________? Forbid it, Almighty God! I know not what others may take, but as for me, give me ________ or give me death!

   After you have filled in the blanks, discuss the processes by which decisions on possible responses were made and any problems encountered. How did prior knowledge of the passage’s topic assist your reading process? (After you have completed this experiment, review Patrick Henry’s speech at the end of the “Hands On” section in Chapter 5.)

   In what ways was your experience similar to that of a student who attempts to decipher a content passage but who has little background knowledge of its content?

2. Bring the following materials to class: a large paper bag, five paper plates, four buttons, three cardboard tubes, scraps of material, six pipe cleaners, three sheets of construction paper, scissors, tape, and a stapler. Your instructor will silently give each group a written directive to create a replica of a living creature (cat, dog, rhinoceros, aardvark, etc.) with no verbal communication permitted.

   After your group has constructed its creature, list the communication difficulties, and discuss how each was overcome. Finally, have a spokesperson from each group share these difficulties with the rest of the class.
3. As suggested in the chapter, rewrite Lewis Carroll’s poem “Jabberwocky” on page 23 using “real” words. Compare your efforts with those of other members of your small group, and discuss the following questions:

- Why are there differences in the translations?
- Does your translation change the intended meaning of the poem?
- Do the differences affect your enjoyment of the poem?
- What personal experiences and prior knowledge that you brought to your reading of the poem may have influenced your translation?

**eResources**

Think about a highly abstract concept, such as *dream* ([www.dreamtree.com](http://www.dreamtree.com)) or *universe* ([www.handsonuniverse.org](http://www.handsonuniverse.org)), and go to websites devoted to the topics. Bring a physical object to class that represents the concept. Verbally report your criteria for choosing the object to your class.

Explore the website [www.literacymatters.com](http://www.literacymatters.com). Select a lesson plan sample that is appropriate for the content area and grade level you plan to teach. Discuss how you could adapt this lesson for use in your classroom.

Take a closer look at the Common Core State Standards. Go to the [Common Core State Standards Initiative online](http://www.corestandards.org) to learn more about the Common Core and the expectations for literacy and learning.

**MyEducationLab™**

Go to Topic 3: Motivation, the MyEducationLab ([www.myeducationlab.com](http://www.myeducationlab.com)) for Content Area Reading, where you can:

- Find learning outcomes for Motivation, along with the national standards that connect to these outcomes.
- Complete Assignments and Activities that can help you more deeply understand the chapter content.
- Practice the core teaching skills identified in the chapter with the Building Teaching Skills and Dispositions learning units.
- Check your comprehension on the content covered in the chapter with the Study Plan. Here you will be able to take a chapter quiz, receive feedback on your answers, and then access Review, Practice, and Enrichment activities to enhance your understanding of chapter content.
- Visit A+RISE. A+RISE® Standards2Strategy™ is an innovative and interactive online resource that offers new teachers in grades K–12 just in time, research-based instructional strategies that meet the linguistic needs of English Language Learners (ELLs) as they learn content, differentiate instruction for all grades and abilities, and are aligned to Common Core Elementary Language Arts standards (for the literacy strategies) and to English language proficiency standards in World-Class Instructional Design and Assessment (WIDA), Texas, California, and Florida.
- Use the Online Lesson Plan Builder to practice lesson planning and integrating national and state standards into your planning.
Learning with New Literacies

New literacies are transforming the way we read, write, think, communicate, and make meaning.

In a twenty-first century digital culture we live in a socially networked society and have come to rely on our digital devices in much the same way that we rely on friends. The gamut of emotions over losing an Internet connection—much like losing a friend—may range from sadness and regret to puzzlement and frustration. Even anger!

Today’s students are digital natives. They have grown up with technologies. Consequently, many learners have developed social media skills and “new literacies” that some parents, best described as “digital immigrants,” can only dream of mastering in a lifetime. Many of today’s youth are fluent at exchanging emails, texts, instant messages, and social network posts on Facebook or MySpace. Although digital natives have access to and experience with information and communication technologies (ICT), they still have a lot to learn about using ICT for academic purposes. What does this mean for literacy and learning across the curriculum? First, and foremost, it signifies in a very public way that we live in a new media age, where technological advances brought on by the digital forces of electronic devices are transforming the way we communicate, collect information, make meaning, and construct knowledge.

Walk into any middle or high school classroom today and you may very well hear the following snippets of instructional conversations between students:

Jon: Where did you find that list of Revolutionary War battles?
Brigittany: I looked it up on Wikipedia.
Danielle: Where did you find out who played Ophelia in that movie?
**Nate:** I found it on the Internet Movie Database.

**Andy:** How did you find out the title of that poem?

**Heather:** I Googled the first line of the poem.

These exchanges reflect the types of information gathering students typically engage in as they interact with digital texts in and out of today’s content area classrooms. As you can see, even the way we and our students use language is changing! In today’s digital world, the names of some search engines have morphed into verbs, as in “I Googled it.” Obviously, the ways in which we find information, no matter what the topic, have transformed radically in just a few short years. The Internet has made information accessible to a degree never before imagined. Yet, it is best to heed the advice of Karchmer-Klein and Shinas (2012, p. 291): “As teachers it is necessary to suspend assumptions regarding the technological knowledge and experience students bring to the classroom and instead develop instruction designed to address curriculum goals and students’ individual needs.”

And therein lies the challenge for teachers in this era of “new literacies”: How can we help our students be effective readers and writers when our concept of “literacy” is evolving so rapidly? Even though students may have developed social networking skills, how will we help them find, make meaning of, and evaluate the information available to them via digital media? How do we help young people keep up with the immense changes occurring in digital media when we may have trouble keeping up with these changes ourselves? It simply is not possible to adequately prepare students for reading and writing in the twenty-first century without integrating new literacies into the everyday life of today’s classrooms. Web 2.0 is here, and Web 3.0
Learners, Literacies, and Texts

1. What are new literacies?
2. What is different about learning with new literacies? What is the same?
3. Why is learning with new literacies essential for students?
4. What are some instructional strategies that can be used to engage and empower learning through the use of new literacies?
5. How do the roles of teachers change when they make new literacies an integral part of subject matter learning?

Frame of Mind

Literacy has evolved from a traditional view of print-based reading and writing to one that recognizes the multiplicity of literacies that vary across time and space. Although skilled readers use many of the same strategies online as they do offline, there are also new skill sets and strategies that learners must develop to use new literacies effectively (Coiro and Moore, 2012). The comprehension strategies that we discussed in Chapter 1, for example, are used by learners both online and offline depending on their purposes for reading. When they go online, however, some of the new literacy strategies that learners are likely to use may include generating digital questions, examining search engine results, and making sense of the multimodal aspects of digital text. As Sweeny (2010, p. 122) noted, “Schools need to embrace ICTs so that students are prepared to function in a world where new literacies are the expectation and the norm.” No wonder new literacies are changing the instructional landscape for learning in today’s classrooms.
New Literacies: An Overview

In a relatively brief period of time, new literacies have impacted the way we think about teaching and learning. Ironically, the first person to use the term *new literacy*, John Willinsky (1990), coined the phrase before the advent of many of the new media that have driven the “new literacies” revolution. Willinsky’s idea of a “new” literacy revolved more around a different mind-set for approaching reading and writing in the classroom than around technological advances. He describes classrooms that are driven not by textbooks and teacher talk, but instead by inquiry and student choice—a “new” literacy that wasn’t dependent on students regurgitating “right” answers. Of course, the roots of a student-centered concept of curriculum, literacy, and learning can be traced back to the groundbreaking work of John Dewey (1899–1980) and many other educational pioneers and literacy researchers who followed in his footsteps.

A recent line of research—the New Literacy Studies—underscores the importance of “a specific sociocultural approach to understanding and researching literacy” (Lankshear & Knobel, 2003, p. 16). A sociocultural approach views literacy as social practice. That is to say, New Literacy Studies examine literacy as completely situated in all of the many “discourses” (i.e., uses of language) in people’s lives—as they act at work, at school, within the family, and in any social situation (Barton & Hamilton, 1998; Street, 1995; Gee, 1996).

As new media became more and more a part of our lives, teachers learned how to surf the Internet and bookmark; in today’s classrooms, they’re learning how to blog and build a wiki. Being a literate person in today’s society involves more than being able to construct meaning from a printed text. A literate person needs to be able to “read” and “write” and learn with texts that have *multimodal* elements such as print, graphic design, audio, video, gesture, and nonstop interaction. In a twenty-first century, media-driven society, a teacher needs to have at least a basic mastery of reading and writing using modes of communication that were previously left to the art, music, theater, and film teachers. Reading and writing aren’t just about print anymore, as we move from a page-dominated literacy to a screen-dominated literacy (Kress, 2003).

From the Arts to Media Literacy

Over the past few decades, in a not unrelated development, many educators have advocated for more inclusion of the arts in classrooms. Arts integration advocates such as Eisner (1997) and Greene (1997) have urged teachers to bring into every classroom multiple forms of representation such as painting, music, and theater. Leland and Harste (1994) discuss “ways of knowing” that need to be honored in our classrooms regardless of whether the Internet has brought these arts elements into the everyday lives of readers and writers. Those who have described what arts-integrated classrooms can look like have given us a glimpse into what all classrooms may need to look like when all reading and writing is done in a multimodal environment.

In fact, it is art educator Eliot Eisner who provides us with a particularly useful overarching definition of literacy:

In order to be read, a poem, an equation, a painting, a dance, a novel, or a contract each requires a distinctive form of literacy, when literacy means, as I intend it to mean, a way of conveying meaning through and recovering meaning from the form of representation in which it appears. (Eisner, 1997, p. 353)
At the same time that some educators were urging arts integration, television had already been an impetus to the development of another key strand of the new literacies movement. Many educators, particularly from the United Kingdom and Australia, called for young people to be educated about the ways of television and all media (Buckingham, 1993), arguing that all students should be exposed to at least the basics of media education, including elements of consumerism as well as production (Buckingham, 2003; Hobbs & Frost, 2003).

Paralleling the work of media educators are the critical literacy theorists who have urged educators to help students explore and examine the power dynamics in the discourses that surround us (Freire, 1970, 2000; McLaren, 1989). Essentially, students need to learn how to be consumers of both “fiction” and “nonfiction” media, and to be able to recognize when they’re being manipulated, as when, for example, they see their favorite television character drinking Dr Pepper. Students are now exposed to advertising even when doing simple research for a school project, and are at risk of being “branded” by corporations even when attempting to perform literacy tasks that used to be free of any kind of advertising (Klein, 2000).

Nonlinear Characteristics of New Literacies

Along with the multimodal aspects of the new literacies, there are additional characteristics of reading on the screen that differentiate new literacies from print-based literacy. For example, new media are usually read in a nonlinear fashion. That is to say, the reader may jump from element to element within a digital text in a completely random way. Traditional printed texts such as books are written for readers to proceed from front to back, reading from left to right. However, readers of electronic texts have the option of clicking on any one of a number of hyperlinks that can take them on a path that digresses completely from the path other readers might take. Linear reading, of course, still occurs. Though many adolescents have probably read the latest Hunger Games or Twilight book, and perhaps even last night’s assignments in their textbooks, much of their personal reading now is done with digital texts. As a result, reading is individualized and proceeds in nonlinear fashion, based on the immediate interests and characteristics of the reader (Reinking, 1997).

In addition, a reader can now interact with other readers and even the author of the text being read. A reader no longer has to wait for an author to respond to a letter or to conduct research at the library about a question that comes up. In many cases, a reader can e-mail the author to answer a question (if the author keeps up with e-mail!). Or, if the author is not available, with several keystrokes, the reader is able to find a community of readers via a bookselling site with whom to engage in some social networking revolving around the text. If there were ever a doubt that reading is a socially constructed activity, these characteristics of new media completely negate the stereotype of the lonely reader being “shushed” by the librarian. Though individualized, reading is becoming a truly social and interactive experience.

Linking In-School with Out-of-School Literacies

The literacies that students have access to outside of school are much different than they were even a decade ago. As adolescent learners develop their use of new literacies for personal and social purposes, there seems to be more of a gap between students’ in-school literacies and their out-of-school literacies. For example, while students say that they always intend to read books on paper (Scholastic, 2008), there is a general tapering off of print-based reading frequency among adolescents, with an even larger decline in reading among boys, who report they
read much less frequently as teenagers than they did as eight-year-olds (Scholastic, 2006). Historically, reading researchers have concentrated more attention on the cognitive side than the affective, motivational side of reading (Guthrie & Wigfield, 1997). This is why it is more critical than ever to continue to make curricular content more relevant, especially in the modes in which content is presented.

There is also an economic argument for using new literacies in the classroom: Helping students to learn with new literacies is part of making sure that they are prepared for life in the twenty-first century. The Pew Internet project reported that 73 percent of respondents (representing 147 million adults) are Internet users, and 55 percent of Americans have broadband access at home as of 2008 (Pew Internet and American Life Study, 2006, 2008). Moreover, the emphasis on new literacies does not necessarily have a negative impact on students’ print literacy. Some studies have shown a link between using activities that involve nonprint-dominated materials and an increase in print literacy.

Using activities that involve visual art—another form of text in the classroom, such as the “sketch-to-stretch” activity—has been shown to further students’ comprehension of print and learning in general (Bustle, 2004; Hibbing & Rankin-Erickson, 2003; Short, Harste, & Burke, 1996; Whitin, 2002). The sketch-to-stretch activity involves asking students to take a break from reading by stretching and then sketch what is being visualized while reading, thus linking print literacy with visual literacy. (See Chapter 9 for a detailed discussion.)

Many teachers are embracing new literacies, in combination with printed texts, as motivational tools in their classrooms; new literacies, in essence, become “the spoonful of sugar to help the print go down” (Kist, 2005). Read about Melissa’s gradual journey into the use of new literacies and technologies in Voices from the Field (see Box 2.1).

**BOX 2.1**

**Voices from the Field**

**Melissa, Secondary School English Teacher**

**Challenge**

I know as a teacher it is essential for me to use new literacies and technologies in the classroom. In fact, I enjoy exploring the language of my learners and love the glimpse of excitement I see when they realize we are “doing something different.” Planning creative lessons and activities targeting higher level thinking is generally a pleasant task in my sometimes endless teaching duties. The difficulty emerges in the application and front-loading stages that are required for implementing high-tech tools and technologies in the classroom. User names, passwords, and student codes can be overwhelming to acquire and distribute; computer carts and wireless server set-up almost guarantee off-task behaviors and frantic requests for help from the class techies who are wondering why I don’t get it.

The logistics of implementing technology in the classroom can be daunting, but like any purposeful and effective teaching tool, it pays dividends in terms of student focus and retention. As a teacher who recently explored electronic portfolio development using student created websites, I can feel the pain of those educators who neither have the time nor the motivation to “upload” to the new method of teaching. However, projector use and PowerPoint presentations pale in comparison to student-focused programs that encourage a deeper learning than the paper-and-pencil

*(continued)*
world could ever image. Collaboration and experimentation are built-in perks of many educational technologies. Teaching with new technologies is worth it . . . but where to start?

Strategy

As a fellow educator who struggles fitting everything deemed “necessary” into my lessons, I’ve listed below some “strategies” I learned from my voyage into the world of teaching with new technologies.

- Use your resources. I was introduced to the website creation site Weebly by the librarian at my school and found out about Glogster by trolling colleagues’ website set up for student use. Most teachers have some things they do really well—it just is hard to find the time to get together and share that knowledge. Making teacher (or staff) talk a priority can result in gained insight into new technology uses. Not only does this provide access to technology with support, but it also encourages cooperative lesson development and collaboration among professionals. Set aside twenty-five minutes every week to “research” educational websites, technology, and freebies that you can incorporate into your lessons. Sometimes this means I have a “working lunch,” but it ultimately is worth the time when I see it results in student engagement and less classroom management issues.

- Explore before teaching. Prior to deciding on the Weebly site, I tried several other “easy” website creators. I quickly found that if it was not simple for me to learn, it would be a nightmare to try and teach students while expecting a focus on content and quality products. Unfortunately, many teachers don’t have the luxury of “practice time”; utilize the technology as a means to an end and make the skills taught the focus of the journey. I used a Saturday morning to fool around with the technology I planned on pursuing and learned the basics so I could create an example that could be presented to students as a “gist”—a basic tangible product that helps them focus on the project/lesson requirements. I also created a short “summary sheet” by copying and pasting from the Help or Frequently Asked Questions section that accompanied the technology I wanted to use. I also cited my references and showed my students how to avoid plagiarism. This freed their minds to critically think about the assignment, not the technology element.

- Don’t stress. My students obtain my practiced level of knowledge usually within fifteen minutes of being introduced to the technology I’d like them to use. Many times, they even have previous experience with it outside of the classroom. Don’t get caught up in the logistics—without a doubt, there are students in the room that are willing to help others who are struggling. If I got stuck, I worked with my students to troubleshoot, and in the process I modeled investigation skills and trial and error. Sometimes I didn’t know how to do what the student intended. The problem would eventually work itself out through collaboration or the student was forced to think creatively around the obstacle. In addition, Google was always a helpful option—basic answers to my questions were many times only a search away, and I used the opportunity as a teachable moment regarding website reliability and validity.

- Start with a set up. If possible, set up a class list with student user names and passwords. Always obtain a list of student e-mails, as e-mails are frequently required for user accounts. Those students that don’t have e-mails can easily set up an account for this purpose through a free site. In addition, many websites offer a free limited function educational version for teachers. In some cases, I had students register independently with a specific password so I could access their account if necessary and they could keep it after they moved on. Set up may also include taking the time to create a very basic example for student guidance. This is optional, though helpful because it may aid you in identifying those areas that will present your students problems. If you choose not to do this, make sure to keep some student samples to use for...
future classes. The great thing about the technology is that these will still be accessible long after the student has moved on. Embrace the learning process. The more I use technology, the more comfortable I become and the more understanding I have regarding what to avoid and what works the best. While teachers don’t expect their students to be perfect at the start of a lesson, many educators frequently buy into perfection pressure for themselves. I started my technology trips with basic practices and easy swaps, and then focused on adding something different each marking period. After a while, most of my lessons included some element of technology and I was able to go back and increase the complexity rather than starting from scratch. The initial time spent paid off as I reworked lesson elements, and I didn’t have to worry about becoming overwhelmed with new set ups for each new set of students.

**Reflection**

The use of technology creates layered learning that reaches students in a way that simple instruction and basic practice cannot. My venture into digital portfolios was well worth the time and effort expended. Not only did my students create, collaborate, and connect, but I also enjoyed more time-on-task teaching and less distracted behaviors. Technology implementation can be tough when there’s not enough time to figure out what needs to be done. Making teaching with technology an area of exploration and enjoyment rather than another task that must be completed will benefit both students and teachers. It is no secret that teachers can get frustrated because their professional world and expectations are continuously changing; in the world of technology, this is an accepted and positive reality. Embracing digital teaching fully and with gusto was my way to overcome any negative expectations and I’m satisfied with the results.

**New Literacies and Content Standards**

Knowing how to use new literacies is integral to the strategic knowledge and skills that every student in all content areas will need to develop to be discipline-literate in the twenty-first century. The Common Core State Standards Initiative (2010, p. 7) highlights what is expected of students in today’s technologically-driven society:

Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

Practically all of the national education associations in the various academic disciplines have developed content standards or statements of principle that implicitly or explicitly acknowledge the use of technologies for information and communication. Actually, new literacies are embedded in more state and national standards than many people assume. Though the term *new literacies* is absent from most state standards within the United States, *media* and *media literacy* are more than likely mentioned. And as Baker (2009) points out, regardless of whether states use the term *media literacy* in their state standards, the topics related to media are present in many subject areas:

- Propaganda and persuasion
- The vocabulary of film and video
• Advertising and marketing
• Bias and objectivity

One of the more comprehensive set of standards for the proficient use of technologies in schools was developed in 2007 by the International Society for Technology in Education (ISTE). The ISTE standards revolve around several broad areas of strategic knowledge and skills: creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem-solving, and decision-making; digital citizenship; and technology operations and concepts. The standards for each of these areas are outlined in Box 2.2.

Recently the United States Department of Education (2010) published an executive summary of the National Education Technology Plan (NETP) entitled *Transforming American*
• Advocate and practice safe, legal, and responsible use of information and technology
• Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
• Demonstrate personal responsibility for lifelong learning
• Exhibit leadership for digital citizenship

   • Understand and use technology systems
   • Select and use applications effectively and productively
   • Troubleshoot systems and applications
   • Transfer current knowledge to learning of new technologies


Education: Learning Powered by Technology. The NRPT outlines five goals and goal-specific recommendations to transform education in America through technology. The goals of NEPT revolve around learning, assessment, teaching, a comprehensive infrastructure to improve learning, and student productivity. The goal for learning in all content areas is particularly germane to this chapter: “All learners will have engaging and empowering learning experiences both in and out of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society (NEPT, 2010, p. 14).” Engage and empower are the key words for teaching students how to learn with new technologies and new literacies in the twenty-first century.

Engage and Empower Learning: Getting Started

The Internet is quickly changing the way we think, inquire, communicate, read, and write. This revolutionary way of communicating includes elements of print, visual art, sound, motion pictures, and advertising. Based on a review of new literacies research and a long-term study of classrooms that are embracing new literacies, Kist (2003, 2005, 2007a) has proposed some characteristics of new literacies classrooms:

• New literacies classrooms feature daily work in multiple forms of representation.
• In new literacies classrooms, there are explicit discussions of the merits of using certain symbol systems in certain situations with much choice.
• In new literacies classrooms, there are meta-dialogues, such as think-alouds, by teachers who model working through problems using certain symbol systems.
• In new literacies classrooms, students take part in a mix of individual and collaborative activities.
• New literacies classrooms are places of student engagement in which students report achieving a “flow” state.

There are numerous instructional tools and strategies for using new literacies in content area classrooms. Given the multiplicity of possibilities for online learning, it is reasonable for a teacher to ask, “Where do I begin?” A good starting point is to demonstrate to students how to think critically in a multimodal environment.
Part one  Learners, Literacies, and Texts

Model How to Think and Learn in Multimodal Environments

Most students probably are well aware of the basic conventions of the Web such as the idea of clicking on a link and going to another website. However, one of the most helpful discussions to have with students is to simply have them discuss the differences in thinking and learning about a multimodal text versus reading to learn in a print-based environment. A good way to get the discussion going is to model a typical (that is to say, nonlinear) reading progression on the Internet.

If a student wants to find out about space exploration in the United States, for example, he or she can access NASA’s website on the Internet. Within that site, one might click on “Space Shuttle” to inquire into the future of the space program now that the space shuttle mission officially ended in 2012. Click on to various links to find out what the shuttles “will do in retirement” or “what’s next” for NASA. You can also click on to a link for a brief overview and history of the space program or digress to videoclips on NASA Television. Later, the reader might click on the “current opportunities” link to find out about many of the lectures and educational projects that NASA offers to students at various grade levels.

The concepts of hypertext and hypermedia are crucial to understanding the interactions between reader and text in a multimodal environment. Hypertext differs from printed text in that its structure is much less linear. The hypertext format offers a “web” of text that allows the reader to link to other related documents and resources on demand. When sound, graphics, photographs, video, and other nonprint media are incorporated into the hypertext format, the electronic environment is called “hypermedia.”

From an instructional perspective, the branching options offered in hypertext and hypermedia serve two important functions: to scaffold students’ learning experiences and to enhance and extend thinking. For readers who may struggle with text or with difficult concepts, the resources available on demand in a hypertext environment include pronunciations, definitions, and explanations of keywords and terms, audio versions of the text, video recordings, video files, photographs, graphics, interactive exercises, and student-centered projects.

One of the most profound ways of getting students to fully realize the interactivity of the Web is to give them practice in writing this way, by insisting that they embed hyperlinks in their writing. To get started, students can look at examples of famous texts embedded with hyperlinks, such as the Magna Carta or the Declaration of Independence found at the site called “From Revolution to Reconstruction” (http://odur.let.rug.nl/~usa). Students can then take any text—an excerpt from a textbook or a novel—and type the excerpt into a word processing document, embedding the text with a certain number of hyperlinks. If, for instance, the text mentions Yosemite National Park, students could be shown how to turn the words “Yosemite National Park” into a hyperlink taking them to the official Yosemite site (www.nps.gov/yose). Once students have practice embedding their own writing with hyperlinks, a logical follow-up is a discussion prompted by such questions as: How is reading hypertext different from reading text in a book? How is writing with embedded hyperlinks different from writing with pencil and paper? What are some things that a writer can do when writing in a hypertext environment that can’t be done when writing in a paper-based environment? What are the advantages and disadvantages of communicating in each environment?

Show Learners How to Evaluate Websites

Along with the benefits of interactive web texts come the risks of quality control. Because a hyperlink can take the reader to potentially untested sites, students need to be taught from an early age how to evaluate the links they come across and how to use them wisely. There are
many models for helping students to search effectively online. Don Leu and his New Literacies Research Team at the University of Connecticut (www.newliteracies.uconn.edu) have come up with a framework for student practice that uses four different lenses when evaluating online resources: (1) examining what bias the site may contain; (2) determining how reliable the site is; (3) determining the accuracy of information on the site; and (4) synthesizing the information presented on the site in a meaningful way (see Figure 2.1).

**Figure 2.1  A Framework for Critically Evaluating Websites**

**Bias and Stance**
- Identify, evaluate, and recognize that all websites have an agenda, perspective, or bias.
- Identify and evaluate bias, given a website with a clear bias.
- Identify and evaluate the author of a website whenever visiting an important new site.
- Use information about the author of a site to evaluate how information will be biased at that site.

**Reliability**
- Investigate multiple sources to compare and contrast the reliability of information. Identify several markers that may affect reliability such as:
  - Is this a commercial site?
  - Is the author an authoritative source (e.g., professor, scientist, librarian, etc.)?
  - Does the website have links that are broken?
  - Does the information make sense?
  - Does the author include links to other reliable websites?
  - Does the website contain numerous typos?
  - Does the URL provide any clues to reliability?
  - Do the images or videos appear to be altered?
- Understand that Wikipedia is a reasonable, but imperfect, portal of information.
- Identify the general purpose of a website (entertainment, educational, commercial, persuasive, exchange of information, social, etc.).
- Identify the form of a website (e.g., blog, forum, advertisement, informational website, commercial website, government website, etc.) and use this information when considering reliability.

**Accuracy**
- Evaluate information based on the degree to which it is likely to be accurate by verifying and consulting alternative and/or especially reliable sources.

**Synthesize Information**
- Understand both the specific information related to the task as well as the broader context within which that information is located.
- Synthesize information from multiple media sources including written prose, audio, visual, video, and/or tables and graphs.
- Separate relevant information from irrelevant information.
- Organize information effectively.
- Manage multiple sources both on- and offline, including:
  - Choose tools to meet the needs of managing information, including file folders, electronic file folders, notebooks, e-mail, and so on.
  - Cite sources.
  - Take notes with paper and pencil, when appropriate.
  - Take notes with a word processor, when appropriate.
  - Type notes using shortcut strokes such as highlight/cut/copy/paste.

An entertaining and instructive way to help students see how easily readers of the Internet can be misled is to show them some of the well-known hoax sites, such as the MalePregnancy site that purports to follow a man through the first recorded male pregnancy. Students can list and discuss design elements of the hoax sites that make them seem as if they are presenting legitimate information. The following hoax sites can be used to teach students the principle that not all sites that appear to be valid are in fact valid:

- Male Pregnancy: www.malepregnancy.com
- Dihydrogen Monoxide: www.dhmo.org
- McWhortle Enterprises, Inc.: www.mcwhortle.com
- Northwest Tree Octopus: http://zapatopi.net/treectopus

**BOX 2.3 RTI for Struggling Adolescent Learners**

RTI strategy interventions in Tier 1 and Tier 2 should capitalize on students’ use of new literacies. Offering struggling adolescent readers an opportunity to interact with electronic text may lead to greater motivation and engagement in literacy activities. The novelty and variety of using multiple media in the classroom may attract students to reading who had long ago given up the pursuit. Technology, as we’ll learn about in this chapter, has created a wealth of new opportunities for learning and has influenced how content area teachers implement instruction. Yet teachers must go beyond incorporating technology into lessons. Adolescent learners facing academic challenges must be taught how to navigate their own learning and think critically while interacting with these resources.

Computers and other electronic devices are both a “facilitator of knowledge and medium for literacy” (Biancarosa & Snow, 2004). Technology allows teachers to plan higher levels of differentiation and to meet the academic needs of a greater number of students during instruction. Electronic databases, such as EBSCO, provide middle and high school students a wealth of information at various degrees of reading difficulty, allowing teachers to find multiple texts related to course content.

For example, EBSCO has created The Student Research Center, a search interface designed specifically for middle and high school students. The Student Research Center provides adolescent learners with appropriate research tools for easily obtaining the information that they seek from EBSCO databases, including electronic magazines, newspapers, biographies, film, and video. Students can also search databases by topic and limit their searches according to appropriate *lexile reading levels* (see Chapter 4 for a discussion of *lexile reading levels* and other tools for determining the readability or difficulty level of texts).

Through the use of electronic texts, content area teachers can create flexible groups within their classes that allow all students access to text appropriate to their needs and relevant to course objectives. In addition, interactive computer programs, such as PLATO and Academy of Reading, adapt to a student’s reading performance by providing text passages that are written at a level consistent with the student’s needs. Doing so increases the comprehensibility of the text for the student. Additionally, such programs provide students with immediate feedback on assignments and allow teachers to track student progress towards goals outlined in intervention plans. Some programs that include voice recognition software allow students to record themselves while reading so that miscues can be tracked and appropriate feedback provided. These resources can be useful for providing students with multiple interactions with texts and for offering independent practice (Biancarosa & Snow, 2004).
Strategies for Writing to Learn

Writing is an essential tool in a new literacies classroom. Many of the instructional strategies associated with multimodal learning feature writing in one form or another. As we explain in Chapter 9, writing to learn is an essential component of literacy and learning across all disciplines because students are often expected to represent their knowledge through writing. What makes the new literacies applications different is that the concept of “writing” has expanded to include creating nonprint representations of knowledge, and the texts themselves may be shaped collaboratively over time and distance.

There are many applications for writing with multiple representations of text. Allowing students to represent the content in a Microsoft PowerPoint presentation is one type of writing activity that allows them to think about core ideas and concepts. However, with new literacies, students have at their command the ability to think and learn with content not only using print but also graphics, sound, and video. A common project, for example, in social studies classrooms is to have students do research on local histories, videotaping local participants in historical events, and then uploading their memories to a website devoted to this project. If students are not able to collect their own primary source documents, they can go online to such sites as the Library of Congress’s American Memory Project (http://memory.loc.gov/ammem/amhome.html).

Two examples of local history projects can be found at the following websites:

Mound Builder Indians
Charles Russell Elementary, Ashland, Kentucky
http://library.thinkquest.org/CR0212160

Social History of Beverly Public Schools
Beverly High School, Beverly, Massachusetts
www.primaryresearch.org/PRTHB/schoolhistory/about.php

For additional ideas and lessons for multimodal writing, explore the websites in Figure 2.2.

Figure 2.2 Related Read/Write/Think Lesson Plans

These lesson plans elaborate on ideas suggested in this chapter. Read/Write/Think is a joint project of the International Reading Association and the National Council of Teachers of English. See www.readwritethink.org/index.asp for more ideas.

Annotating Poems with Hyperlinks
www.readwritethink.org/lessons/lesson_view.asp?id=36

Blogging About Utopian Societies
www.readwritethink.org/lessons/lesson_view.asp?id=942

Critical Media Literacy: Commercial Advertising
www.readwritethink.org/lessons/lesson_view.asp?id=97

Conducting Collaborative Internet Research: Harlem Renaissance
www.readwritethink.org/lessons/lesson_view.asp?id=252

Examining the Content of Internet Sites
www.readwritethink.org/lessons/lesson_view.asp?id=29

Using Wikis to Catalog Protest Songs
www.readwritethink.org/lessons/lesson_view.asp?id=979
Although we live in a new media age, some educators are concerned that we will lose “book knowledge” as a society; that today’s students are so tuned into their mobile phones, iPods, and laptops, they won’t know how to speak, write, or read anymore. It’s clear, however, that what many people are doing on their digital devices is a form of reading and writing and that these new literacies are shaping our communication in ways we never could have envisioned just twenty years ago. As researchers at the Pew Internet and American Life Project report in their ground-breaking study, *Writing, Technology and Teens*:

Most teenagers spend a considerable amount of their life composing text, but they do not think that a lot of the material they create electronically is *real* writing. The act of exchanging e-mails, instant messages, texts, and social network posts is communication that carries the same weight to teens as phone calls and between-class hallway greetings. (Lenhart, Arafeh, Smith, & Macgill, 2008, p. 1)

Using a combination of focus groups from various regions of the United States and telephone surveys, the Pew research team documented many interesting phenomena about adolescents’ personal identities in relation to technology and writing. The role of digital technologies in the lives of adolescents is quite evident in these findings: 75 percent of teens have a cell phone, 93 percent use the Internet, 68 percent of online teens use instant messaging, and nearly 75 percent have created content for the Internet. Figure 2.3 summarizes the Pew findings.

It seems that many educators around the world are indeed realizing the potential of new reading and writing forms. Whether or not we embrace these new forms, the screen-based

**Figure 2.3** Writing, Technology, and Teens: Summary of Findings

- Even though teens are heavily embedded in a tech-rich world, they do not believe that communication over the internet or text messaging is writing.
- The impact of technology on writing is hardly a frivolous issue because most believe that good writing is important to teens’ future success.
- Teens are motivated to write by relevant topics, high expectations, an interested audience, and opportunities to write creatively.
- Writing for school is a nearly everyday activity for teens, but most assignments are short.
- Teens believe that the writing instruction they receive in school could be improved.
- Nonschool writing, while less common than school writing, is still widespread among teens.
- Multichannel teens and gadget owners do not write any more—or less—than their counterparts, but bloggers are more prolific.
- Teens more often write by hand for both out-of-school writing and school work.
- As tech-savvy as they are, teens do not believe that writing with computers makes a big difference in the quality of their writing.
- Parents are generally more positive than their teen children about the effect of computers and text-based communication tools on their child’s writing.
- Teens enjoy nonschool writing and, to a lesser extent, the writing they do for school.

society to which Kress (2003) referred is now upon us. Learners will need to have practice in navigating the rich sources of communication that are now available in greater abundance and in more alternative forms than ever before. Writing provides many opportunities to learn in a new literacies-centered classroom. Let’s take a closer look at some of the communication tools that teachers can use to engage and empower writing to learn.

**Threaded Discussions**

A potentially powerful online writing to learn strategy makes use of a communication tool known as *threaded discussions*. Threaded discussions are designed to involve students in the exploration of texts and topics under study. In the process of doing so, learners are often engaged in problem solving, reflection, and critical thinking.

In a threaded discussion, small groups of students in a class are connected through a digital medium such as an Internet-based forum or discussion board. *Moodle*, *Google Groups*, *Mediawiki*, *PBWiki*, and *ThinkPad* are some of the more popular, free options that teachers have used for course management, forums, and discussions. Whatever software is used to establish a threaded discussion forum, it is important that the site used is secure and can be accessed only with a password. It should also be easy to navigate and have instructions on how to use and participate in discussions.

When used for instructional purposes, online discussions allow a teacher to post a question or topic for students to read about from various sources and reflect upon. Each small group usually gets a different question or topic for discussion. Within their small groups, learners then respond to the question with their own posts over time. The combined posts comprise a “thread” of conversation; hence the term *threaded discussion*.

Threaded Discussion Groups (TDGs) may be selected by the teacher or self-selected by the students themselves. Each learner in a TDG works individually to inquire into the topic (or respond to a question) and gather information using online and/or offline informational sources. In a literature class, for example, TDGs may be involved in a discussion of a short story or novel; in an American History class, TDGs may be gathering information online, from a textbook and/or supplementary texts in order to respond to a question posted by the teacher; in an eighth-grade science class, students may be studying global warming by searching for information on the Internet. Unlike a chat room where discussion is spontaneous and in real-time, threaded discussions are *asynchronous*; in other words, discussion is not simultaneous as in face-to-face exchanges among participants. Asynchronous threaded discussions allow students the time to search for and gather information as well as read, think, and reflect on the topic or question before responding. As Wolsey (2004, (p. 1)) noted,

> Through threaded discussion groups, students are allowed time to think about their responses . . . and to the comments of other students in the group. In a face-to-face discussion in the classroom, students must wait their turn to speak and do not have time for reflection; in the asynchronous environment of the TDG, students are free to explore the literature, their peers’ responses, and their own experiences as they contribute to the discussion.

Within the framework of an asynchronous threaded discussion, a teacher can participate in every group and monitor several groups at once because discussions are not occurring in real time.
Netiquette in Online Discussions

The whole idea behind a threaded discussion is to be collaborative, not combative. Before beginning threaded discussions as a classroom activity, a teacher should review and emphasize the rules of netiquette when posting a response online. Netiquette—a “cyber word”—refers to the social code and rules of network communication. The term is derived from the words network and etiquette. When students are engaged in threaded discussions and other forms of online communication, it is imperative that they follow netiquette rules. First and foremost, they are to treat other students in a TDG with respect and courtesy. They shouldn’t attack another student for his or her ideas. This is not to say they can’t disagree with another’s comments, but they should be respectful of the student who made them. Moreover, no one student should dominate a discussion with multiple posts.

Consider the following netiquette suggestions for student interactions in online forums adapted from Online Student Expectations (retrieved April 26, 2012):

• Respect the privacy of classmates and what they share.
• Ask for clarification if a posting is difficult to understand.
• Recognize that exposure to another group member’s response and comments are part of the learning experience, even though you may personally disagree with the comments.
• Before posting a comment, ask whether you would make the same comment in a face-to-face discussion.
• Keep in mind that something that would be inappropriate in a face-to-face classroom discussion is also inappropriate in an online discussion.

Guidelines for Threaded Discussions

Planning instruction, a topic we discuss in detail in Chapter 5, is essential to the success of threaded discussions in the classroom. McVerry (2007) suggests following four stages of implementation which include: organizing the threaded discussion; modeling the skills students need to effectively post online; facilitating and managing the group discussions as they take place online; and assessing the quality of the students’ posts. When organizing a threaded discussion, teachers need to ask themselves:

• What are the goals and objectives of the threaded discussion?
• What are the rules and conventions students should follow in making a post?
• How many posts will students be required to make? How long should a post be?
• Will each small group in the class receive the same question or different questions?
• How much choice should students have in how the discussion unfolds?

Providing explicit instruction that models what is expected of students when making posts online is another important instructional component that will help to insure the success of threaded discussions. Begin by walking students through the use of the technology needed to engage in discussions. Also show and discuss models of high quality posts from past classes. Once the threaded discussions begin, continue to model the process by participating in the TDGs with teacher posts that help facilitate the conversations occurring among students.

Facilitating the TDGs is especially important, especially if learners lack confidence, are unsure of themselves, or do not participate fully in the discussions. Some students may lack
prior knowledge or interest in the subject under discussion. Others may fear being wrong or lack experience with online communication. Whatever the case, the teacher needs to guide and manage threaded discussions on an ongoing basis to ensure that learners participate successfully and are engaged in higher levels of thinking than merely regurgitating a fact or two.

Several well-established guidelines to facilitate TDGs are suggested below:

- Use one question or topic to begin a threaded discussion.
- Assign a different question or topic to each group in the class.
- Vary the writing approach for responding to questions. For example, learners can respond to topics with comments or opinions supported by text study, they can engage in role-play according to assigned roles, or they can raise reflective questions for further response and study.
- Lead the conversation in order to model effective posting, set the tone for discussion, and keep students focused on the topic.

Allow learners to disagree with a post in a collaborative, not combative manner. In addition to these suggestions, it is important to be specific with instructions. For example, you might instruct learners to respond to a posted question with a paragraph of at least five to eight sentences or more depending on the purpose of the discussion. Also, you might ask learners to respond to other student posts with a minimum of two or three sentences.

Assessing the quality of students’ writings in a threaded discussion should be viewed as a culminating learning experience, not a paper-and-pencil test of students’ ability to write in this particular medium. In other words, assessment is authentic. Engaging in authentic assessment, as we discuss in detail in Chapter 4, is a collaborative experience between teacher and students. The use of a rubric is one way to have students play a role in judging the quality of their writing and participation in a threaded discussion. A rubric provides students with a detailed framework and guidelines about what is expected of them in online discussions. As Edelstein and Edwards (2002, retrieved May 1, 2012) contend, a rubric not only evaluates student performance but also improves learning: “A well-written rubric can provide useful feedback regarding the effectiveness of a student’s participation in threaded discussions and offer benchmarks against which to measure and document progress.”

The design of the rubric depends on the instructional objective(s) for student engagement and learning in the threaded discussion. The teacher develops performance criteria that are directly tied to the lesson’s objectives. Each criterion is then judged along several dimensions. Teachers use rubrics to rate student performance; however, students may also use a rubric as a self-assessment tool to improve performance. Figure 2.4 contains a sample rubric that covers the basic criteria for a threaded discussion.

Blogs, Wikis, and Nings

Readers frequently access information from “homemade” collaborative texts found online in the form of blogs, wikis, and Nings.

Blogs

Blogs, short for weblogs, are essentially online journals or diaries that are often personal accounts of life experiences. In many instances, blog readers rely on these stream-of-consciousness accounts for serious information, whether in regard to political races, social issues, or even
### Figure 2.4 Rubric Example for a Threaded Discussion

<table>
<thead>
<tr>
<th>Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participation and Timeliness</strong></td>
<td>Does not respond to posts in a timely manner</td>
<td>Occasionally responds to posts in a timely manner</td>
<td>Frequently responds to posts within a 24-hour period</td>
<td>Consistently responds to posts within a 24-hour period</td>
</tr>
<tr>
<td><strong>Relevance</strong></td>
<td>Comments and opinions do not relate to discussion of content</td>
<td>Most posts are off topic or offer little insight into discussion content</td>
<td>Frequently posts comments related to topic and prompts further discussion of content</td>
<td>Consistently posts comments related to topic and prompts further discussion of content</td>
</tr>
<tr>
<td><strong>Content Quality</strong></td>
<td>Does not express ideas clearly; posts are not supported with specific ideas or examples</td>
<td>Minimal development of topic; posts are occasionally supported with specific ideas and examples</td>
<td>Posts are frequently supported with specific ideas and examples</td>
<td>Ideas fully developed and are consistently supported by ideas and examples</td>
</tr>
<tr>
<td><strong>Writing Mechanics</strong></td>
<td>Poor spelling and grammar in most posts; posts are hastily written with noticeable errors</td>
<td>Errors in spelling and grammar in some of posts</td>
<td>Few spelling or grammatical errors</td>
<td>Consistently uses grammatically correct language with correct spelling</td>
</tr>
</tbody>
</table>

**TOTAL**

**COMMENTS:**

Weather conditions. Teachers are now assigning students to read preselected blogs related to class projects, make comments on the blogs, and then report back to the class, perhaps in the form of their own student blogs. A class can set up its own blog with space available for each student to have personal blogspace. Commonly used sites to host blogs are www.blogger.com and www.typepad.com.

Study how Heidi Whitus, an English teacher from Communication Arts High School, begins the year with a class activity that asks students to perform certain tasks related to media study and respond in the form of a blog (see Figure 2.5).

Blogs can be set up so that only members of the class can access them and only the blog owner can post entries. The teacher can be notified via e-mail each time an entry is posted or comment made so that appropriateness of content can be monitored. Teachers are
**Figure 2.5  Heidi Whitus’s Blog Assignment**

Please do at least one of the following before December 4 and report on it in your blog:

<table>
<thead>
<tr>
<th>Activity 1</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Partially Proficient</th>
<th>Not Proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listen to the podcast of “On the Media” at least twice during the semester. You can subscribe to it from iTunes or go to <a href="http://www.onthemedia.org">www.onthemedia.org</a>. Summarize the stories you heard on your blog. Be sure to make a note of the dates of the podcasts you listened to.</td>
<td>• More than two shows listened to</td>
<td>• Two or more shows listened to</td>
<td>• Two shows listened to</td>
<td>• Fewer than two shows listened to</td>
</tr>
<tr>
<td></td>
<td>• Detailed summaries and reflections of both stories</td>
<td>• Summaries of both stories</td>
<td>• Insufficient summaries of stories</td>
<td>• No summaries of stories</td>
</tr>
<tr>
<td></td>
<td>• Dates included</td>
<td>• Dates included</td>
<td>• Dates not included</td>
<td>• Dates not included</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity 2</th>
<th>Read papers on more than three days</th>
<th>Read papers on three days</th>
<th>Read papers on fewer than three days</th>
<th>Read papers on fewer than two days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read the San Antonio Express-News and a newspaper from another city on at least three different days. Compare the types of stories covered, the amount of advertising, and the kinds of feature stories (“soft” news) in the two papers.</td>
<td>• Detailed comparison and reflections of both papers</td>
<td>• Comparison of both papers</td>
<td>• Slight comparison of both papers</td>
<td>• No comparison of papers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity 3</th>
<th>Watched more than three channels</th>
<th>Watched three channels</th>
<th>Watched fewer than three channels</th>
<th>Watched fewer than two channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch television news from at least three different channels (WOL, KENS-5, KSAT, PBS, KABB are the local stations, and if you have cable you should also include CNN, FOX News and/or MSNBC); compare their approach to broadcast journalism by choosing a specific story and describing the differences in how the different channels cover the story.</td>
<td>• Detailed comparison and reflections of all stories</td>
<td>• Comparison of all stories</td>
<td>• Slight comparison of stories</td>
<td>• No comparison of stories</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity 4</th>
<th>Watched more than two films</th>
<th>Watched two films</th>
<th>Watched two films</th>
<th>Watched fewer than two films</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch at least two of the following movies about mass media outside of class, and summarize the films and your reflections of them in your blog:</td>
<td>• Detailed summaries of all films</td>
<td>• Summaries of both films</td>
<td>• Slight summaries of film</td>
<td>• No summaries of films</td>
</tr>
<tr>
<td>• All the President’s Men</td>
<td>• Network</td>
<td>• Good Night and Good Luck</td>
<td>• His Girl Friday</td>
<td>• Citizen Kane</td>
</tr>
<tr>
<td>• Broadcast News</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The China Syndrome</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Shattered Glass</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

using blogs for such functions as classroom management, learning logs and online notebooks, class discussions, and, of course, personal expression (Echlin, 2007). When introducing blogs, it’s important to establish guidelines for blogging such as those suggested in Figure 2.6.

An interesting blogging project called YouthVoices (http://youthvoices.net) attempts to bring together schools from around the world as students write blog entries and collaborate on various writing activities. The project represents a school-based social network that was started in 2003 by a group of teachers participating in the National Writing Project. Students are also allowed and encouraged to create their own groups about topics as diverse as rap music and world peace. As they communicate with each other online about their various topics of inquiry, students are expected to adhere to some simple but direct rules of conduct:

- Speak directly to the student or teacher whose post you are responding to
- Quote from the post or describe specific details (of an image or video)
- Relate the work to your own experiences or to another text, image, video, or audio that this one reminds you of
- Be encouraging and generous with your remarks; end on a positive note

Following these guidelines leads to a greater citizenship potential for students, as they will increasingly have to collaborate and interact with people online over the course of their lives.

**Wikis and Nings**

Wikis and Nings are more collaborative in nature, as readers seek to build knowledge on a specific topic and upload the text to a common environment. *Wiki* is a Hawaiian word meaning “fast” and has come to signify a collaboratively built text in which volunteers

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**Figure 2.6  Student Blogging Guidelines**

1. Avoid inappropriate language. When engaging in online discussions of a classroom topic, comments should be related to the content of the post and should not involve gossiping, bullying, “chat talk,” or non-content-related explanations or observations.

2. Blog posts should be respectful, constructive, on-topic, and add meaningful content to the online discussion. The goal of classroom-related blogging is to share knowledge of the topic and to advance the online discussion. Whenever possible, end a post with a question so that your readers will have something to think about as they prepare their responses.

3. Approach blogging as an activity that leads to a “published” piece of writing. Resist reacting to a post without thinking about the topic first, what you already know about the topic, or what questions you might raise to advance the discussion. Then respond to the post, but also take the time to proofread, revise, and edit your comments before you submit them for others to read. Check also for correct spelling and grammar.

4. Avoid providing personal information, photos, or videos with your image in your blogs. Classroom-related sites for blogging may be open to the public to view. You never know who will read your posts.

5. Reply to all or most of your comments. Use references and resources, but do not plagiarize.
contribute facts and help to edit and shape the presentation of the information. Many teachers are using sites such as www.pbwiki.com or www.wikispaces.com to host wikis that they build with their students. Such wiki building can also serve to facilitate a discussion about the pitfalls (and advantages) of using wikis for information: When anyone and everyone can contribute information to a wiki, readers need to make sure the information being read is accurate.

Nings have come on strong since the startup of www.Ning.com in 2004. At this site, readers can join discussions on a growing number of topics and start a social network of their own, focusing on a common topic of interest. Nings are rapidly becoming sources of information for people interested in delving deeply into a topic. Nings and wikis can be set up to engage students with many different topics.

Social studies teacher Tom Daccord set up a wiki combined with a Ning to help students research the presidential race of 2008 as part of the Great Debate Wiki/Ning Project (www.greatdebate2008.wikispaces.com). This project was a collaboration of approximately ten schools across the United States. Students who never met each other face-to-face had the opportunity to collaboratively build a knowledge base about the presidential race and also to make persuasive arguments about their positions. They were assigned to research and collect information on topics related to the candidates’ positions and then post them on the wiki. They began the project by exploring several presidential positions assigned by their teachers, but were also encouraged to inquire into other issues related to the candidates’ positions. One group of students chose to research the issue of the death penalty, even though this was not a major issue in the presidential campaign. This topic, for whatever reason, generated much research and then much passionate debate, once students moved to the second part of the project. After the positions were thoroughly researched, students went to the Ning and participated and debated in the various forums according to the topics they had researched. The Ning was password-protected, so that only members of the classes involved could make comments.

The advantage of having students document their process via a blog, wiki, and/or Ning is that teachers and students have a running record of the journey taken. Moreover, a teacher has the ability to guide and redirect student thinking, if necessary, via a well-placed blog comment or comment in a Ning forum. The fact that the teacher’s comment appears alongside the students’ gives a clear visual representation that the teacher and students are colearners.

Strategies for Multimodal Learning

Showing students how to use strategies to think and learn in multimodal environments and participate in threaded discussions, blogs, wikis, and Nings is often initiated within the context of demonstration lessons known as Internet workshops. The Internet workshop allows teachers to model and demonstrate skills and strategies related to new literacies.

Internet Workshops

An Internet workshop is characterized by its flexibility. In some respects, it is similar in purpose to a writing workshop or a reading workshop in an English/language arts classroom (Atwell, 1998). In writing and reading workshops, teachers who use a workshop model in their
classrooms set aside regularly scheduled time for students to engage in reading and writing activities. In the process of doing so, students share their reading and writing with others in the class, typically in small-group book discussions or writing response groups. During workshop time, teachers often conduct “minilessons” to respond to content- and process-related issues and problems students are having during reading or writing sessions. Minilessons may also be designed for strategy instruction. In these explicit instructional situations, a teacher may take several minutes or more of workshop time to show students how to use a set of procedures that will help them become more skillful as readers and writers.

Like reading and writing workshops, an Internet workshop provides an instructional framework for students, allowing for regularly scheduled time to engage in activity on the Internet. The activity may range from specific electronic text assignments to individual or group research to collaborative projects on the Internet. For example, a teacher might assign a website or several websites for students to visit. With younger learners, the websites are bookmarked in advance by the teacher so that the class has easy access to them. Students are directed to the website(s) to engage in a content literacy activity in much the same way as they would in a textbook or other print resources. Many of the content literacy activities in this book can be adapted for this purpose.

On other workshop occasions, students may work individually or in collaboration with one another on WebQuests, Internet inquiries, or Internet projects. These instructional strategies are much more extensive than specific assignments on the Internet and may take one to several weeks to accomplish. Regardless of the type of instructional focus, teachers should bring students together intermittently during workshops to share their work or to build strategic knowledge and skills related to the effective use of the Internet as a tool for learning. In these situations, workshop time is devoted to problems students are having searching for information or communicating with others. Internet workshops can also be designed around explicit strategy instruction. For example, a workshop might revolve around using search engines effectively, thinking critically about information, or designing a web page.

**Internet Inquiries**

The Internet inquiry engages students in research using information sources on the Internet. Inquiries can be conducted individually or collaboratively and often take one or more weeks to complete. Internet inquiries are typically part of larger thematic units and are used in conjunction with Internet workshops. The Internet inquiry broadly follows the tenets of a discovery model for investigating hypotheses or questions. Students are invited to (1) generate questions about a topic or theme under discussion in class, (2) search for information on the Internet to answer the questions, (3) analyze the information, (4) compose a report or some other form of dissemination related to findings, and (5) share findings with the whole class.

Question generation is one of the keys to conducting a successful Internet inquiry. Many teachers use the KWL strategy (what I Know, what I Want to learn, and what I did Learn) (see Chapter 7) to help students raise questions. Others use brainstorming techniques to generate a list of questions. Whatever strategy is used for generating questions, the questions should come from the students rather than the teacher whenever possible. An Internet workshop minilesson might focus on asking good questions to guide the information search. A teacher
may also use workshop time to scaffold instruction on how to use search engines effectively or how to record and analyze information through the use of “inquiry charts” (I-charts) and other tools for recording and analyzing findings (Hoffman, 1992; Randall, 1996). In Chapter 5, we provide steps to guide the various phases of any type of inquiry or research investigation.

An Internet Inquiry in Elementary Science

Students in a third-grade elementary classroom have been engaged in a thematic unit related to the study of monarch butterflies. As part of the unit, the class developed a plan for raising monarch butterflies and visited several websites on the Internet related to specific workshop activities that the teacher had planned. The students also read trade books such as Discovering Butterflies by Douglas Florian, Monarch Butterfly by Gail Gibbons, and Animal World: Butterflies by Donna Bailey. As a result of these classroom learning experiences, the class embarked on an Internet inquiry designed around the students’ “personal questions” regarding monarch butterflies. The class first brainstormed a list of questions that the teacher recorded on chart paper. Some of the questions included: Do monarch butterflies eat anything besides milkweed? Are monarch butterflies found all over the world? How long do monarch butterflies live? and How many eggs can one monarch butterfly lay? Using the list of questions on chart paper as a guide, each student selected three questions to research. The questions did not have to come from the brainstormed list but could be generated by students as they engaged in their information search on the Internet and from trade books that were available in the classroom.

The teacher conducted an Internet workshop on how to use the search engine Ask.com (www.ask.com). She also explained to students how to use I-charts to record information they found on individual websites or in trade books related to each of their questions. Across the top of the I-chart, each student recorded his or her name and a personal question about monarch butterflies. The remainder of the I-chart was divided into two columns. The left column provided space for a student to record the name of the website or trade book that was used to gather information. The right column was used to record information that students found to answer their questions. Across the bottom of the I-chart was space for students to record “new questions” based on their research.

When students completed their information searches, they collected their I-charts and began analyzing the information to answer their questions. The teacher facilitated the analysis by walking around the room, helping individuals as needs arose. Students used the analysis to create a poster portraying the answers to their questions. The inquiry culminated with a “poster session” in which students shared the information related to their questions.

Internet Projects

An Internet project involves collaborative approaches to learning on the Internet. Often students engage in project learning with other students who may be from different schools in different parts of the country or the world. Other types of projects may involve collaborative interactions between students and experts from various fields. For example, Internet projects are regularly posted on websites such as NASA Quest, where students have the
opportunity to discuss space science and many other topics with one another and with NASA personnel.

Many Internet projects are designed by teachers as part of units of study. Advanced planning is essential for teacher-designed projects. Generally the following steps need to be considered:

• **Plan a project for an upcoming unit and write a project description.**
• **Post the project description and timeline several months in advance seeking classroom partnerships with other teachers.**
• **Post the project at a location on the Internet where teachers advertise their projects, such as Global SchoolNet’s Internet Project Registry (www.gsn.org/pr/index.cfm).**
• **Arrange collaboration details with teachers in other classrooms who agree to participate.**
• **Complete the project using Internet workshop sessions for project-related activities and e-mail information exchanges with students and teachers in other classrooms involved in the project.**

Leu, Leu, and Coiro (2006) provide numerous examples at different grade levels of Internet projects for various content areas that are posted on websites or have been designed by teachers.

**WebQuests**

WebQuests have become a popular instructional model for engaging learners on the Internet. A WebQuest is a teacher-designed web page that packages various learning tasks and activities for students to complete using Internet resources. WebQuests are typically organized around several components: introduction, task, process, resources, learning advice, and conclusion.

The introduction to a WebQuest provides an overview of the learning opportunity available to the students. Often the introduction places the learner(s) in a hypothetical situation somewhat similar to RAFT (Role of the writer, Audience, Format, Topic) writing activities (see Chapter 9). As a result, students are assigned a role and a purpose for engaging in the learning activity. The task component of the WebQuest describes the task(s) students will complete and lists the questions that guide the information search. The process component outlines the steps and procedures students will follow to complete the learning task. The resources component of a WebQuest provides links to information resources on the Internet that students will need to access to complete the learning task. The “learning advice” component provides directions to students on how to organize information, whether in outlines, time lines, graphic organizers (see Chapter 10), notebook entries such as the double-entry journal format (see Chapter 5), or I-charts. And finally, the conclusion to the WebQuest brings closure to the activity and summarizes what students should have learned from participation in the WebQuest.
Looking Back | Looking Forward

Digital texts and media are highly engaging and interactive. Hypertext and hypermedia make it possible to interact with text in ways not imaginable even a short while ago. Text learning opportunities in multimodal environments are interactive, enhance communication, engage students in multimedia, create opportunities for inquiry through information searches and retrieval, and support socially mediated learning. Reading and writing with computers has changed the way we think about literacy and learning. Whether students are navigating the Internet or interacting and collaborating with others through threaded discussions, blogs, Nings, and wikis, an array of electronic text learning experiences await them. Various instructional strategies, including Internet workshops, Internet inquiries, Internet projects, and WebQuests are approaches to online learning in various content areas.

In the next chapter, we take a closer look at one type of student who often struggles with content literacy tasks—the English learner. With every passing year, the United States becomes more linguistically and culturally diverse. English learners struggle with academic language and are often tracked in lower ability classes than language majority students. The dropout rate among English learners is alarmingly high. How can content area teachers plan instruction to account for cultural and linguistic differences in their classrooms? Let’s read to find out.

Minds On

1. To what extent do you believe students should participate in the selection of documents from websites for use in a content course? Would you answer this question differently for students of various ages?

2. How often have you used digital texts as part of subject matter learning? In your estimation, did the teacher use a digital text assignment to its full potential? If not, in what additional ways might the digital text resource have been explored?

3. Why do many students seem to dislike doing research in a library but are enthusiastic about surfing the Internet for information resources?

4. What are the similarities between learning with new literacies and traditional print texts? What are the differences?

5. What are the barriers facing teachers who want to assign more projects involving new literacies? What are ways to overcome those barriers? Are the benefits worth the effort?

6. What are the challenges of assessing new literacy projects?
1. Assign students to write an essay with embedded links. Look at some examples of hypertext such as any Wikipedia article or online text. Discuss with students what is different about writing in a hypertext environment versus a traditional pencil-and-paper environment.

2. Instead of a paper-and-pencil anticipation guide, set up a digital version, in which students e-mail you whether they disagree or agree with statements you have written that preview a text they will be reading. (See Chapter 6 for more details.)

3. Select a recent news event and conduct a search for information resources on the Web. Select several resources and compare them for treatment, reliability, and accuracy. What does it mean to develop a healthy skepticism when interacting with texts on the Web?

4. Using the keywords “Examples of WebQuests,” conduct a search on the Internet for teacher-designed WebQuests in the content area of your choice. Evaluate three or four of the WebQuest websites. Based on your search, what are some of the strengths of a WebQuest instructional model? What are some of the weaknesses? Discuss the strengths and weaknesses of these WebQuests in a small group.

5. Search the Global SchoolNet’s Internet Projects Registry or other locations similar to it for Internet project descriptions in your content area. Use these project descriptions to guide the development of a project description that you have in mind at a grade level of your choice. Share your project descriptions with others in your group.

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**eResources**

Conduct an Internet inquiry of your own by going to Reading Online (www.readingonline.org) and Global SchoolNet’s Internet Project Registry (www.gsn.org/GSH/pr/index.cfm). Study several reports and Internet projects in your content area.

Find out more about the WebQuest strategy by going to http://webquest.org/index.php. Explore existing WebQuests and consider how you could create a WebQuest for your content area.
Go to Topic 9: Integrating Technology, the MyEducationLab (www.myeducationlab.com) for Content Area Reading, where you can:

• Find learning outcomes for Integrating Technology, along with the national standards that connect to these outcomes.
• Complete Assignments and Activities that can help you more deeply understand the chapter content.
• Practice the core teaching skills identified in the chapter with the Building Teaching Skills and Dispositions learning units.
• Check your comprehension on the content covered in the chapter with the Study Plan. Here you will be able to take a chapter quiz, receive feedback on your answers, and then access Review, Practice, and Enrichment activities to enhance your understanding of chapter content.
• Visit A+RISE. A+RISE® Standards2Strategy™ is an innovative and interactive online resource that offers new teachers in grades K–12 just in time, research-based instructional strategies that meet the linguistic needs of English Language Learners (ELLs) as they learn content, differentiate instruction for all grades and abilities, and are aligned to Common Core Elementary Language Arts standards (for the literacy strategies) and to English language proficiency standards in World-Class Instructional Design and Assessment (WIDA), Texas, California, and Florida.
• Use the Online Lesson Plan Builder to practice lesson planning and integrating national and state standards into your planning.