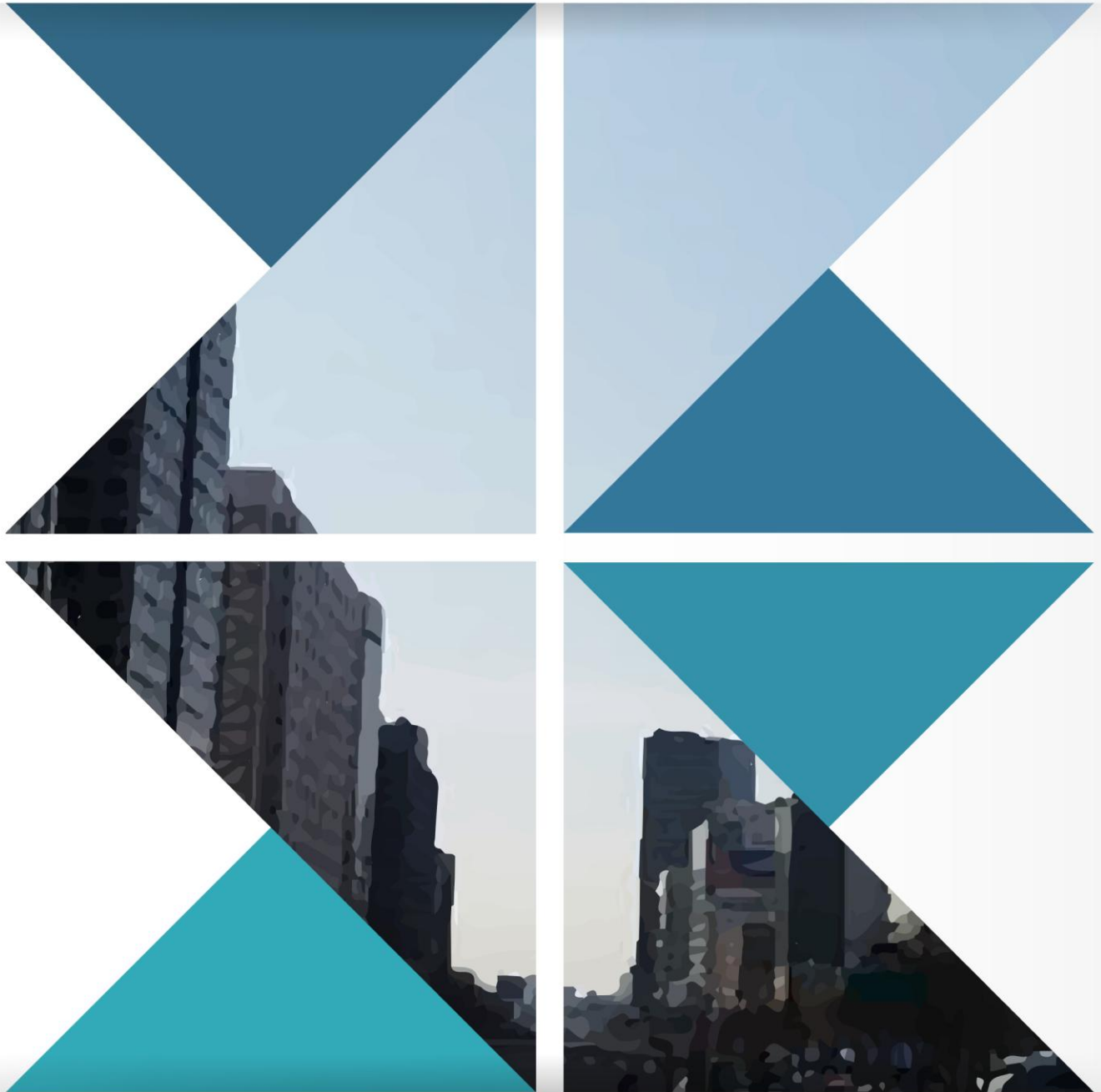


Contribution:



STEPS TO SUCCESS

ED. KRISTEN A. MUNGER



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Steps to Success

Crossing the Bridge Between Literacy Research and Practice

Edited by Kristen A. Munger

*Bryan Ripley Crandall, Kathleen A. Cullen, Michelle A. Duffy, Tess M. Dussling, Elizabeth C. Lewis, Vicki McQuitty,
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Foreword

Kathleen A. Hinchman

My first class roster as a newly minted, suburban middle school reading teacher in the 1970s was 85% male and 100% White. Kind boys all, they changed my flat tires, gave me their Halloween candy, and apologized when they were naughty. They also missed school for hunting season, punched each other to resolve disputes, described story characters with racial slurs, and qualified for free and reduced price lunches. They could not decode multisyllabic words or discuss main ideas and details with any precision, and they knew it. As a result, they lacked the wherewithal to complete homework assignments unless we did them together. Most tested at a third- to fourth grade “reading level,” yet they did not qualify as “learning disabled” because of “reading potential” that was measured as commensurate with “cognitive ability.” They enacted their hopelessness by taking standardized tests stoned on cough syrup despite my warnings that high school course selections depended on their performance.

While I was teaching, Kenneth Goodman (1967), Frank Smith (1971), and Richard Anderson and colleagues (1977) were exploring the role of prior knowledge in reading comprehension. Scholars like P. David Pearson and Dale Johnson (1978), and my advisor, Harold Herber (1978), followed with instructional recommendations that incorporated important insights from this research about attending to students’ prior knowledge, work that resonated with me as methods that could be helpful for my students. I went to graduate school, excited about doing research in this same vein.

However, at the same time, Dolores Durkin (1978–1979) and Richard Allington (1984) published research that described the limited implementation of such new ideas, and the National Commission on Excellence in Education (1983) chastised us for not helping all students participate in the global economy in a report called, *A Nation at Risk: The Imperative for Education Reform*. As a result, my own work also took a turn toward exploring how reading instruction was situated in schools, and I decided to explore why content area teachers did not support students’ reading despite decades of research suggesting they should do so (Hinchman, 1985).

Why do I begin this foreword with a brief, biased history of literacy education from my perspective? Each theoretical and research advance in literacy instruction that I have experienced over the past 30 years has brought new affordances and challenges to educators’ ability to meet the needs of all students. These, too, are contentious times in the educational world: Common Core State Standards and assessment-tied teacher evaluations have positioned literacy instruction and assessment at the center of this contention: ironically, the literacy skills that are the most reliably tested do not reflect the wide array of communicative skills that the Common Core Standards and others suggest as what is needed by our young people in today’s *uber* competitive world. The world of literacy research can seem to offer a miasma of competing ideas about how to proceed with literacy instruction and programs in this context.

This text, *Steps to Success: Crossing the Bridge Between Literacy Research and Practice*, addresses today’s practice-driven questions about how to help young people live successful lives as literate human beings. I am proud to note that its editor and authors were all successful Syracuse University literacy education doctoral students. Their research, like mine, addresses gaps they have observed between classroom reality and what we know about embracing students’ literacy strengths to address their needs. The chapters that follow are in the same vein, offering practical suggestions based on their research by identifying affordances and challenges of current approaches to literacy instruction and delineating clear paths for educators to follow.

The pluralistic approach to literacy instruction represented by this text means that readers will brand it a “keeper” after an initial read. The text as a whole provides a needed and useful overview of how current K-12 literacy instructional approaches are situated in a standards-driven world. Each chapter includes a nice balance of research-based instructional practices that address a wide array of students’ needs. The practical support offered by *Steps to Success: Crossing the Bridge Between Literacy Research and Practice* will be invaluable to educators who want to provide effective literacy instruction in today’s contentious, standards-driven world.

Kathleen A. Hinchman is Professor in the Reading and Language Arts Department and Associate Dean for Academic Affairs in the School of Education at Syracuse University. A former middle school teacher, she teaches literacy methods courses and seminars. A co-editor of the Journal of Adolescent and Adult Literacy, her scholarship includes grants, articles, and books, including Reconceptualizing the Literacies in Adolescents’ Lives, Best Practices in Adolescent Literacy Instruction, and the forthcoming Handbook of Adolescent Literacy Practice-based Research. Her current scholarship explores policy implications of literacy-related secondary school reform and use of formative design to explore methods of adolescent literacy instruction.

References

- Allington, R. L. (1984). Content coverage and contextual reading in reading groups. *Journal of Reading Behavior, 16*, 85–96.
- Anderson, R. C., Reynolds, R. E., Challert, D. L., & Goetz, E. T. (1977). Frameworks for comprehending discourse. *American Educational Research Journal, 14*, 367–381.
- Durkin, D. (1978/1979). What classroom observations reveal about reading comprehension instruction. *Reading Research Quarterly, 14*, 481–533. doi:10.3102/00028312014004367
- Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist, 6*, 126–135. doi:10.1080/19388076709556976
- Herber, H. L. (1978). *Teaching reading in content areas* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Hinchman, K. A. (1985). Reading and the plans of secondary teachers: A qualitative study. In J. Niles & R. Lalik (Eds.), *Issues in literacy: A research perspective: Thirty-fourth yearbook of the National Reading Conference* (pp. 251–256). Rochester, NY: National Reading Conference.
- Pearson, P. D., & Johnson, D. D. (1978). *Teaching reading comprehension*. New York, NY: Holt, Rinehart, & Winston.
- Smith, F. (1971). *Understanding reading: A psycholinguistic analysis of reading and learning to read*. New York, NY: Holt, Rinehart, & Winston.
- National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*. United States Department of Education.

About the Book

Steps to Success: Crossing the Bridge Between Literacy Research and Practice introduces instructional strategies linked to the most current research-supported practices in the field of literacy. The book includes chapters related to scientifically-based literacy research, early literacy development, literacy assessment, digital age influences on children's literature, literacy development in underserved student groups, secondary literacy instructional strategies, literacy and modern language, and critical discourse analysis. Chapters are written by authors with expertise in both college teaching and the delivery of research-supported literacy practices in schools. The book features detailed explanations of a wide variety of literacy strategies that can be implemented by both beginning and expert practitioners. Readers will gain knowledge about topics frequently covered in college literacy courses, along with guided practice for applying this knowledge in their future or current classrooms. The book's success-oriented framework helps guide educators toward improving their own practices and is designed to foster the literacy development of students of all ages.

About Open SUNY Textbooks

The Open SUNY Textbook program is a creative means to improving access to educational materials while fostering a community of resources that spans disciplines and encourages interdisciplinary study. SUNY Libraries and faculty are leading SUNY's open textbook publishing initiative and have already saved thousands of dollars for SUNY students. Having published 12 free online textbooks, with 14 more planned in the next 18 months, this innovative multi-institutional program is lowering the cost of textbooks for students in New York and beyond. More about the program can be found at textbooks.opensuny.org.

Reviewer's Notes

Sharon M. Peck

Steps to Success: Crossing the Bridge Between Literacy Research and Practice provides a rich review of literacy instruction. With an initial focus on literacy research, and chapters spanning literacy development to adolescent instruction, it has a wide appeal. Additionally, the text addresses writing and English Language Learning, two areas commonly omitted from the conversation.

One strength of this text is that each chapter follows an accessible structure of stating the goals for the chapter, presenting a well-crafted image of the current state of research, and culminating with questions to consider. Each chapter affords the reader an overview of the aspect of literacy instruction; how it fits within the whole of literacy learning, key viewpoints, instructional methods and concerns. These considerations make an often daunting subject much more accessible.

While this textbook would be a valuable read at any stage in a graduate program, its broad scope, lends to using various chapters in separate courses such as Foundations of Literacy Development, Methods and Materials of Elementary Reading, Adolescent Literacy and Action Research. As an open textbook it provides rich resources for graduate and undergraduate instruction in education, literacy, and teacher research.

Sharon M. Peck is an associate Professor of Literacy in the School of Education at SUNY Geneseo. She teaches graduate coursework in literacy instruction and runs an urban literacy clinic. She actually misses teaching action research and strives to empower all teachers to be avid consumers of research. She enjoys working with in-service teachers, researching language arts, community place based education, storytelling and puppetry.

Reviewer's Notes

Kelly Chandler-Olcott

As an edited volume, *Steps to Success: Crossing the Bridge between Literacy Research and Practice* is unusual in being comprehensive and concise without sliding into shallowness or superficiality. It addresses many of the most compelling topics being debated among literacy professionals right now, providing a welcoming but not overwhelming introduction to the field for newcomers. Each contributing author has conducted recent original research in the area(s) about which he or she writes, lending credibility and currency to each review of the existing knowledge base (as well as refreshing candor about where that knowledge base remains incomplete). Authors write invitingly, with accessible examples, and offer well-crafted questions and activities to cement and extend readers' understandings of the content.

Each chapter is designed to stand alone, allowing higher-education instructors or school-based leaders such as principals, curriculum coordinators, or literacy coaches in charge of professional development to assign one or more selections aligned with a particular topic. That said, the volume is most powerful in my view when multiple chapters are read in conversation with each other, as numerous threads—the importance of high expectations for all, the need to expand what counts as literacy and for whom, the key role of teachers as decision makers—cut across various contributions. Although different authors employ different theoretical lenses, they share obvious core commitments about literacy, pedagogy, and equity grounded in their common preparation at Syracuse University as teacher educators and researchers. This shared background creates coherence across the collection, while the contributors' wide range of interests and current professional affiliations offers diversity of perspective. Each author represents a distinctive voice within a predictably structured chapter outline.

The book would have represented an important contribution to the field in a print-based volume offered by a traditional academic publisher. That it is available online, via Open SUNY Textbooks, extends its reach and makes it all the more important.

Kelly Chandler-Olcott is Laura J. and L. Douglas Meredith Professor for Teaching Excellence in the Reading & Language Arts Department at Syracuse University. A former high school English and social studies teacher, she now teaches English methods and content literacy courses to secondary and K-12 education majors. With support from the National Science Foundation, the International Reading Association, and the Spencer Foundation, she has published five books and more than 60 chapters and articles, including in such venues as Reading Research Quarterly, Journal of Literacy Research, Journal of Teacher Education, and Teacher Education Quarterly. Her research interests cluster in three areas: classroom inquiry by teachers, literacy across the curriculum, and preparing professionals to teach writing in diverse, inclusive settings. In 2015, she began a six-year appointment as co-editor of Journal of Adolescent & Adult Literacy.

Acknowledgements

We would like to thank a number of people for assisting in the creation of this textbook. First, we would like to thank Allison Brown and Katherine Pitcher at SUNY Geneseo. Their leadership, facilitation, and advisement helped to create a textbook that is informative, accessible, and freely available to students and other readers. We are also grateful to the librarians at the SUNY Oswego library, who fielded incessant questions about citations and attributions. In addition, the current textbook would not be in the fine form that it is in without the many constructive comments provided by three expert reviewers. These reviewers included Kelly Chandler-Olcott, Sharon Peck, and an additional anonymous reviewer selected by Robert Rickenbrode. And finally, we would like to thank Kathleen Hinchman, whose thoughtfully written foreword situates this textbook as a meaningful contribution toward informing both literacy research and practice.

1. A Brief Introduction to Literacy

Kristen A. Munger

Abstract

This chapter provides an overview of what literacy is and why it is important, along with some key questions designed to assess background knowledge related to literacy teaching and learning. At the end of the chapter, tips are provided to students and teacher educators for how to get the most from the textbook. A series of activities is also provided to deepen understanding of literacy and to facilitate planning for becoming an effective teacher of literacy.

Learning Objectives

After reading this chapter, readers will be able to

1. discuss different ways to define literacy and other literacy-related terms, along with reasons why definitions have evolved;
2. explain the role of literacy as a gateway to all learning and why strong literacy skills are essential for functioning in a contemporary, globalized society;
3. discuss the scope of literacy knowledge prior to reading the rest of the textbook, and formulate a plan for how to add to what is known;
4. summarize ways to use this textbook to gain knowledge about literacy teaching and learning.

Introduction

If you took to the streets one day to find out how people define literacy, chances are you would get a lot of different answers. Literacy is one of those terms that at first seems straightforward, but as pointed out by Keefe and Copeland (2011), asking people to define literacy “deceptively suggests simplicity, but instead opens up a world of complexity” (p. 92).

Because there are so many different ways people think about literacy, it is worthwhile to examine some ideas associated with it. For example, the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2009–2014) has discussed literacy not just in reference to teaching practices in U.S. schools but in reference to the meaning of literacy across the world. Two key components to their description are that literacy is a “fundamental human right” and is the “foundation for lifelong learning” (para. 1).

My Burgeoning Understanding of the Meanings of Literacy

I did not really begin to appreciate literacy as a fundamental human right until I started working in schools. My first professional career was as a school psychologist, and in this role, I had many opportunities to observe children who had developed extraordinarily high levels of literacy, and also many children who had not. As part of my job, I worked with teams to find out which students who were struggling had learning disabilities in literacy areas, such as reading, listening comprehension, oral expression, and written expression. I became perplexed when I realized that a rather large number of students who were having trouble developing literacy skills did not necessarily have learning

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disabilities. So I delved into research on literacy and discovered that what I observed was common in many schools across the nation.

As I continued to research literacy, I found many sources of information that included recommendations for how to teach literacy but comparably fewer sources that featured credible research on the effectiveness of recommended methods. It seemed like almost everyone had an opinion about the best ways to teach literacy, but there was not a lot of research to back up these opinions. Part of the problem was that there were far too many approaches to teaching literacy for people to research. After all, teachers make hundreds of instructional decisions per day, and not all of these decisions can be supported by expensive studies that may take years to conduct. But an additional and bewildering problem was that some sources of information continued to include teaching recommendations that high quality research studies had determined were not effective. Keep in mind that these experiences occurred before the preoccupation with accountability that now exists in U.S. schools, so the positive or negative effects of instruction were not as closely monitored.

One principal I met told me that she believed that many ineffective practices were connected to the “love curriculum.” When I asked her what she meant, she told me that some educators simply cling to teaching what they love, regardless of the effects on students. I also began to wonder if at least part of the problem was that teachers were not made aware of quality research findings that could better inform their practices. Many teachers could point to a citation in a written document as proof that a practice was research-based, but when I began to track down citation sources, I would often find links to new sources and citations that never led to credible research backing the original claim. I realized how confusing and frustrating the research landscape must be for teachers seeking information. If it was taking me hours to track down and evaluate research evidence for a claim made in a teacher publication, I could not imagine what it would be like for teachers to try to access this information, all while managing a full time teaching job.

As I continued my search for answers for why so many students were struggling with literacy, I came across a rather dense article by Vellutino et al. (1996) that strongly influenced my perspective on literacy development, and ultimately influenced my choice of career. Since I do not have enough space or most readers’ attention to describe the study in full detail, I will just describe the part of the study that shifted my worldview. The researchers evaluated a large group of kindergarten students across multiple schools to gauge the students’ reading levels and cognitive skills (e.g., memory and language processing). Then, in first grade, half of the children with the lowest reading levels received 30-minute sessions of high quality tutoring, while the other half received the usual interventions and supports provided by their schools. What the researchers found was that after only one semester of tutoring, 67% of the low readers raised their reading scores to be average or above average. The reason why this study’s findings were a game changer for me was that a commonly held belief was that children who were having difficulty learning how to read must have something wrong with them, and that it is part of a school psychologist’s job to figure out what was wrong with the child. What Vellutino and colleagues discovered was that the majority of first grade students who struggled with reading could learn to read quite well, but the trick was focusing on the kind of *instruction children needed* rather than focusing on what was wrong with children.

As a school psychologist, my practice began to shift from seeking explanations of literacy problems based on fixed factors within the child, to seeking solutions within the instructional environment. I narrowed my literature searches to prevention and intervention studies, and I began to attend numerous professional development sessions on these topics. As my expertise grew, there also grew a demand for me to share what I was learning with teachers, school psychologists, and administrators in surrounding schools. Each year, I was asked to provide more staff development at local area schools, and I began to realize that what I really wanted to do was teach others about literacy.

Since the study by Vellutino et al., a broad array of informative studies have been published with credible research findings to inform literacy teaching practices.

As a result of this chain of events, I ended my 12-year career as a school psychologist and went back to school to obtain a Ph.D. in Reading Education at Syracuse University. I decided that I not only wanted to share existing research on literacy, but I also wanted to learn how to conduct research myself. It was at this point that I began to conceptualize literacy in the same way that UNESCO discussed it—as a “fundamental human right . . . foundation[al] for lifelong learning” (para. 1). I began to feel a social obligation to work toward helping students achieve high levels of literacy. It is this journey that has led me to co-author and edit this textbook for you, since what you do will have a major influence on what your students know and can do, not only in your classroom, but for the rest of their lives. This textbook will not only provide you with access to research information but will also instruct you on how to evaluate research claims and how to locate trustworthy information about literacy practices. I want you to join me in helping students achieve high levels of literacy. Reading and discussing information within the chapters of this textbook are important steps in our work together.

In addition to the influence of Vellutino et al. (1996) on my thinking, I have had numerous other epiphanies that have shaped my future teaching, writing, and research. One notable moment occurred while I was conducting a research project with a diverse group of students, in which about a quarter of them spoke a language other than English at home and where there were six different races/ethnicities represented among them. On a day that I was observing at a school, a reading teacher was testing a little boy who was African American and had a medical condition that required numerous visits to the school nurse. Based on the reading teacher’s assessment, it became apparent that the child was experiencing considerable difficulties developing his skills in reading and writing. My moment of insight occurred as I walked with the little boy to the nurse, alongside the reading teacher. I suddenly recognized how every dimension of this child contributed to his literacy development. These dimensions included his family, his race and culture, his gender, his feelings, his peers, his teachers, his physical needs, and so many other identities and experiences that resulted in this little boy needing to leave his classroom to go check his insulin level because he had not gotten enough to eat at breakfast.

Other moments of insight arrived to me at similarly unexpected times. I can recall working with a high school student who was probably one of the most intellectually gifted people I had ever met. He was an avid reader who understood the world in such unique and sophisticated ways, given the relatively short time he had existed in it. When I observed him in his classes, he readily shared his knowledge and insights in class discussions; however, he simply would not engage in academic writing. Although his verbal reasoning was so strong that it was nearly unmeasurable using conventional tests, his writing looked like it came from a first or second grader. His handwriting was messy, his spelling was jumbled, and his ideas were disorderly. The student had been diagnosed with recurrent brain tumors. Each surgery claimed a little more of his ability to express his ideas in writing, but the surgeries did not appear to negatively impact his spoken language. I observed his use of literacy skills in science, math, history, and the arts, and I also observed how difficult it was for teachers to understand and accommodate the extremes in his literacy capabilities. For students at all grade levels, I began to see how unique the learning of literacy was, along with how much teachers needed to know and be able to do to teach literacy to diverse groups of learners.

Discussion of Key Terms Used Throughout This Textbook

As you read this textbook, you will find that certain key terms, which are described below, recur throughout many of the chapters. You will notice that some authors use these terms to reflect broad meanings, whereas other authors use these terms to discuss only one or two aspects of their mean-

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ings. Authors will signal to you what they mean when they use these terms so that you can understand which aspects apply to each chapter.

Language Comprehension

In this textbook, the meaning of “language comprehension” is represented by a schematic by Scarborough (2002) featured prominently in Chapters 3 and 4 of this textbook. Language comprehension consists of the interweaving of language components, including the background knowledge someone has, along with knowledge of vocabulary, language structures (e.g., grammar), verbal reasoning abilities, and literary knowledge (e.g., genres). In addition, language comprehension also includes personal aspects of comprehension, such as the experiences individuals draw upon to construct meaning (Shanahan et al., 2010).

Literacy

The term “literacy” is used in this textbook to refer to a wide range of skills and abilities related to reading, writing, listening, speaking, viewing, and performing (National Governors Association & Council of Chief State School Officers [NGA & CCSSO], 2010), along with an array of perspectives that situate literacy within a sociocultural context. While traditional definitions of literacy have centered mostly on the ability to read and write, contemporary definitions include social practices, such as those associated with culture and power (Freire & Macedo, 1987) that are interwoven among all literacy practices, including teaching, learning, and using literacy. Furthermore, the digital age has brought forth innovative changes in how people make meaning, so the term literacy also includes making meaning from different modes of communication, which are described next.

Modes

In this textbook, the term “modes” is consistent with how the term is used in the New London Group (1996), who defined modes to include traditional expressions of meaning such as spoken and written language, as well as other forms of expression, including “Visual Meanings (images, page layouts, screen formats); Audio Meanings (music, sound effects); Gestural Meanings (body language, sensuality); Spatial Meanings (the meanings of environmental spaces, architectural spaces); and Multimodal Meanings” (p. 80), which involve integration of the other modes.

Reading Comprehension

The meaning of “reading comprehension” in this textbook is based on a definition by the RAND Reading Study Group (Snow, 2002) and was also featured in an influential reading comprehension practice guide released by Institute of Education Sciences (Shanahan et al., 2010). This definition includes “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow, 2002, p. xiii) and the “capacities, abilities, knowledge, and experiences” one brings to the reading situation (p. 11).

Text

In this textbook, the term “text” refers not only to printed documents but other forms of communication in which a listener, speaker, reader, writer, or viewer can make meaning of a message. While many chapter authors refer to texts as printed documents, other authors use the term to refer to more diverse modes of communication, including:

The social and cultural linkages among our reading of books, viewing of films and television, screening of videos, surfing the web, playing computer games, seeing advertising billboards, and even wearing T-shirts and drinking from coffee mugs that belong to multimedia constellations. (Lemke, 2005, p. 4)

Questions Related to Literacy Research and Practice

Included below are some questions to explore your background knowledge of literacy prior to reading the rest of this textbook. Thinking about your background knowledge will help you connect what you are about to learn with the funds of knowledge that you bring to learning more about literacy research and practice.

1. How does research contribute to what teachers do in classrooms with their students?
2. How do young children learn how to recognize words and comprehend texts?
3. What are some similarities and differences in how writing is taught to young children versus adolescents?
4. What influence has the digital age had on literacy teaching and learning?
5. What instructional strategies are most beneficial for English language learners?
6. What do the terms “multimodality” and “new literacies” mean in reference to literacy teaching and learning?
7. How do race, ethnicity, gender, disability, and linguistic factors impact the literacy opportunities of students from dominant and traditionally marginalized groups?

If you did not know how to fully answer most of the questions, then this textbook will provide you with a wealth of information that you will need to know and be able to use to become an effective teacher of literacy. Even if you have a great deal of background knowledge related to literacy, this textbook will provide you with helpful examples for how to use that knowledge in your teaching. See the “Questions and Activities” section at the end of this chapter for ideas for how to create a learning plan to prioritize what knowledge and experiences you may want to acquire to become or remain an effective teacher of literacy.

Overview of This Textbook

Steps to Success: Crossing the Bridge Between Literacy Research and Practice was written for preservice and practicing teachers who want to better meet the needs of their students. The book was written by authors with expertise spanning major topics in literacy. A fundamental goal in the creation of this textbook was to present information on literacy research and practice in interesting ways. Included in the book are many relevant examples from the field to facilitate a problem-solving approach to becoming an effective teacher. An important aim of each chapter is to promote the idea that literacy teaching is a dynamic and complex synthesis of research, theory, and practice, as opposed to silos of difficult-to-apply information. An important end result of instructional decisions educators make, and practices they use, is that decisions should bring about benefits to students. This means that individuals preparing to be effective teachers must not only understand the complexity of literacy but also how to make informed decisions in spite of this complexity. This textbook does not contain all of the answers you will need to make these decisions about teaching literacy, but when used in combination with all of the other experiences you will have in becoming an educator, it will add to what you know and will be able to do to help students develop their literacy skills.

This book spans many topics related to literacy teaching and learning. Following the introductory chapter you are now reading, Chapter 2 provides an overview of literacy research, followed by Chapter 3 and Chapter 4, which relate to the development of word reading skills and reading comprehension, based on an important theoretical framework known as the “Simple View of Reading” (Gough & Tunmer, 1986). Chapter 5 provides background on literacy assessment, followed by Chapter 6, which addresses approaches to writing instruction for elementary school children. Chapter 7 provides background on how the digital age can creatively enhance the teaching of children’s literature. Chapter 8 and Chapter 9 address literacy teaching and learning in relation to two important and often underserved student groups, including English language learners and students with intellectual disabilities. Chapter 10, Chapter 11, and Chapter 12 focus on adolescent literacy,

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including 21st century literacy, teaching adolescent writers, and the use of discipline specific literacy strategies in culturally responsive ways. Chapter 13 provides an overview of world language and literacy development, and Chapter 14 instructs readers how to analyze their use of language to explore both literacy and identity.

Similar to this introductory chapter, the other chapters begin with an abstract describing what the chapter is about, followed by a brief but important set of learning objectives. Next is an introduction to the main topic(s) covered, followed by the body of the chapter and a set of questions, resources, websites and/or activities readers can explore to problem-solve case studies and plan their future teaching. At the end of each chapter is a reference section with all of the sources authors used to write their chapters. Although readers of textbooks do not always take the time to look through the references of a body of work, readers are encouraged to explore these documents to further fact-check the knowledge and practices they are being asked to integrate into their teaching, as well as to deepen their knowledge of current issues within the field of literacy research and practice.

To Students Who Read This Textbook

To students who are assigned to read chapters from this textbook, please consider the following advice for getting the most from it. This book is intended to provide you with some of the knowledge you will need to become an effective teacher. It is certainly not the only source of knowledge you will need but is meant to serve as an important foundation to ease the learning of content you will encounter in other courses and at your field placements. It is also meant to inform your future teaching, so it is important to read the information and think about it in reference to your teaching rather than just reading it to get an assignment out of the way. Students may also be tempted to think about literacy as being only related to reading and writing, and therefore, only associated with English language arts and English classes, but as argued previously, literacy is much broader than this and permeates every single subject taught in schools. Approaching this book with a broad view of literacy as it relates to making meaning across all school experiences will help prevent readers who may be planning to teach subjects within the domains of science, math, physical education, social studies, and the arts from mistakenly assuming that literacy teaching is not relevant to their practice.

And remember, if you are planning to become a teacher, preparing to teach is not accomplished by simply taking a series of required courses and electives at a college or university. You are making a career choice, and to be successful in a career, you must develop a commitment to preparing for it, not only by participating meaningfully in your college courses but by constantly evaluating your progress toward professional goals, and seeking additional experiences in areas where you need to learn more. When you begin working toward becoming a teacher, rather than just trying to meet course expectations, remember to keep your focus on how to develop the skills you need to help students learn from what you do.

To Teacher Educators Who Use This Textbook

To teacher educators who plan to use this book in their classes, please consider the following advice to get the most from it. You may wish to assign one, many, or all of the chapters according to your instructional goals and objectives. Each chapter was designed to fit together with the other chapters but was also written to stand alone on the topics addressed. Because the book is published as a freely accessible e-book with Open SUNY and a Creative Commons 4.0 license, you can use chapters freely that will benefit your students, without worrying about how the cost of the book will impact your selection of other course-related resources.

Also note that each chapter has clear objectives, self-assessments, and ideas for activities that can be completed in or out of the classroom to help students gain further knowledge about the teaching

and learning of literacy. Consider incorporating some of these activities into your syllabus so that students are actively engaged not only in doing the readings but also using what is learned to make instructional decisions for the children and adolescents whom they will encounter in educational field placements and when they enter the field of education. In addition, links to websites and references included in each of the chapters may be valuable for your students to explore more fully, depending on your course objectives.

Summary

This introductory chapter was designed to orient you to ways to define and think about literacy, as well as familiarize you with the format and purposes of this textbook. Literacy is complex and requires a great deal of knowledge to appreciate and a great deal of effort to teach. Included in this chapter was a discussion of literacy in terms of its scope—that it is not limited to reading and writing but encompasses a diverse set of modalities—such as listening, speaking, viewing, and performing, as well as factors related to sociocultural and digital influences. Because research continues to provide insights into some of the most enduring questions in the field, learning how to teach literacy is somewhat of a moving target. It takes high levels of knowledge, skill, and effort to teach children and adolescents literacy, while continuing to stay informed of research findings that may help improve your practice.

Keep in mind that the snapshot of literacy represented in this textbook does not include your experiences, so there are many things left for you to learn. Also absent from this textbook are the many answers to important literacy questions that will be generated by future research in the coming decades. What this means is that everyone with an interest in literacy must be prepared for life-long study, not only of what literacy is today, but also what literacy will become.

Questions and Activities

1. Find one or two students who have taken college literacy courses, and a few other individuals (e.g., classmates, friends, family members) who have not taken any literacy courses. Ask them to define literacy, and write down what they say. Bring your definitions to class and compare what your informants said compared to other students' informants. Discuss how the definitions overlap and are different. What assumptions about teaching and learning accompany the definitions (e.g., if literacy were narrowly defined as being able to read and write, how might teaching and learning a subject like math or art look and sound different than if literacy were defined more broadly)?
2. Using an online discussion board, a wiki, or in person, select someone to write a single sentence to define literacy. Have that person select a classmate to add to and/or refine the definition, with the new person then selecting someone else to continue the process. Add to the initial definition until everyone in the class has had an opportunity to contribute (be sure each person cites any sources he or she uses before passing the task to the next person). After reading this textbook and accessing other sources about literacy, revisit your definition. Are there aspects you want to stay the same? Are there aspects you want to change? Individually refine the class's definition to represent your definition of literacy, and write a brief reflection providing justification for your definition. Save your definition and reflection for later use for when you write a teaching philosophy that incorporates literacy.
3. In what way is literacy being shaped by the digital age? Discuss ways in which your own literacy experiences have broadened through the use of technology. Are there digital tools that you find essential to your own literacy learning? What concerns do

you have related to the affordability and accessibility of digital tools for children in U.S. schools and around the world?

4. What do you think about literacy being defined as a fundamental human right? Is literacy like other basic human rights or is it more of a luxury? If certain groups are denied access to literacy opportunities, such as in nations where some social norms may discourage access to schooling for girls, would you argue that this is a cultural difference, a human rights violation, both, or neither? Debate your thinking with a small group of classmates, while making sure to include peers who have different cultural backgrounds from your own.
5. Begin to draft a learning plan that can lead to your becoming an effective teacher of literacy. First, talk to employers, inservice teachers, college instructors, advisors, and classmates about what you will need to know and be able to do when you are hired as a teacher. Next, identify goals you have not already attained related to your knowledge and practice of teaching. Your goals may be related to content you want to teach, student groups with whom you want to work, your own interests in literacy, and any certification tests you may need to pass. Begin creating a plan incorporating the knowledge and experiences you will need to develop. Revisit your plan each semester, and actively monitor your progress toward reaching your goals. Finally, be sure to include what you will need to know and be able to do after you are hired as a teacher in a school. Becoming an effective teacher is a process, not an event, so frequent reflection on what you need to do to remain effective is essential.

References

- Freire, P., & Macedo, D. (1987). *Literacy: Reading the word and the world*. South Hadley, MA: Bergin & Garvey Publishers.
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education, 7*, 6-10. doi:10.1177/074193258600700104
- Keefe, E. B., & Copeland, S. R. (2011). What is literacy? The power of a definition. *Research & Practice for Persons with Severe Disabilities, 36*, 92-99. Retrieved from http://www.pealcenter.org/images/What_is_Literacy.pdf
- Lemke, J. (2005). Towards critical multimedia literacy: Technology, research, and politics. In M. McKenna, D. Reinking, L. Labbo, & R. Kieffer (Eds.), *International handbook of literacy & technology* (Vol. 2, pp. 3-14). Mahwah, NJ: Erlbaum.
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects*. Washington, DC: Author. Retrieved from <http://www.corestandards.org/ELA-Literacy/>
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*, 60-92. Retrieved from http://vassarliteracy.pbworks.com/f/Pedagogy+of+Multiliteracies_New+London+Group.pdf
- Scarborough, H. S. (2002). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 97-110). New York, NY: Guilford Press.
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). Improving reading comprehension in kindergarten through 3rd grade: A practice guide (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://files.eric.ed.gov/fulltext/ED512029.pdf>

- Snow, C. (Chair). (2002). *RAND reading study group: Reading for understanding, toward an R&D program in reading comprehension*. Santa Monica, CA: RAND. Retrieved from http://www.prgrs.edu/content/dam/rand/pubs/monograph_reports/2005/MR1465.pdf
- Vellutino, F. R., Scanlon, D. M., Sipay, E. R., Small, S. G., Pratt, A., Chen, R., & Denckla, M. B. (1996). Cognitive profiles of difficult-to-remediate and readily remediated poor readers: Early intervention as a vehicle for distinguishing between cognitive and experiential deficits as basic causes of specific reading disability. *Journal of Educational Psychology*, *88*, 601-638. doi:10.1037/0022-0663.88.4.601
- United Nations Educational, Scientific and Cultural Organization. (2009-2014). *Education: Literacy*. Retrieved from <http://www.unesco.org/new/en/education/themes/education-building-blocks/literacy/>

2. Key Ideas for Evaluating Scientifically-Based Approaches to Literacy Instruction

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Abstract

This chapter focuses on key ideas for evaluating scientifically-based literacy research, as well as ways these ideas can guide educators in making instructional decisions most likely to bring about benefits to students. The chapter includes an overview of how to recognize which literacy research is scientifically-based and where to find it, how to recognize other valuable forms of research, the special role of experimental design in scientific thinking, and a rationale for monitoring student progress to ensure that literacy approaches promote learning, not just within the context of research but also when implemented in classrooms.

Learning Objectives

After reading this chapter, readers will be able to

1. describe the difference between empirical and non-empirical research;
2. explain the role of scientifically-based research in evaluating the effectiveness of literacy-based programs and strategies;
3. describe the role of all forms of literacy research for informing literacy practices, including how findings from different types of research build upon one another;
4. discuss characteristics of experimental and non-experimental research, and evaluate how research designs impact the kinds of research questions researchers can address;
5. discuss the rationale for monitoring the progress of students when a specific instructional approach is selected over another, along with how to use this rationale to make educational decisions.

Introduction

In 1989, a teacher's manual by Dennison and Dennison was released containing solutions for improving students' learning. Essentially, teachers were instructed to show students how to perform certain movements to activate brain regions to promote learning. By following the manual's instructions, teachers could improve students' "symbolic recognition for the decoding of written language" (p. 5), "spatial awareness and visual discrimination" (p. 6), "binocular vision" (p. 15), and "creative writing" (p. 29), along with dozens of other skills important to learning. Perhaps you have heard of this program and may have even experienced it yourself when you were a student. It is called *Brain Gym* (Dennison & Dennison, 1989) and has been immensely popular with educators in many countries since its release.

The purpose of the above description is not to decide whether *Brain Gym* movements are a good or bad idea. Teaching students various postures or breathing techniques is not likely to cause much harm and may have some benefits, but the point is that many educators purchased and used

the program *without questioning the claims made by the authors*. What evidence is there that “cross crawl sit-ups” enhance “the mechanics of spelling and writing” (p. 13) or that “brain buttons” promote the “correction of letter and number reversals” (p. 25)? There is none, yet even today information for teachers featuring these exact claims are easily located. The most recent edition of the *Brain Gym* teacher’s manual¹ (Dennison & Dennison, 2010) available at <http://www.braingym.com/> is advertised as “now the standard in many schools around the world and is recommended by tutors & teachers & those looking for a more functional satisfying lifestyle & sense [of] well-being” (BrainGym.com, n.d.).

At this juncture, you might be thinking something along the lines, “What is the evidence of these claims about *Brain Gym*?” This question serves as a compelling segue to a central point of this chapter. Effectively evaluating the extent to which literacy approaches are backed by research is critical in an age of information excess and misleading advertising, as is determining how different kinds of research can inform literacy instruction. No matter how fervently program advertisers, educators, researchers, and the media assert that a program is effective and is backed by research, such claims still require some kind of evaluation of the strength of the evidence. This chapter provides a framework for teachers, administrators, and other educational professionals to better understand ways in which different levels of research support can be used to make decisions about literacy instruction.

Research and Scientific Thinking

The teaching profession has become increasingly aligned with the idea that literacy instruction and literacy materials must be “research-based” or “evidence-based” (*No Child Left Behind Act*, 2002). Although this alignment does not require that every decision teachers make be backed by research evidence, it does mean programs and approaches to literacy instruction that are linked to credible research findings at least have a strong track record of benefiting students. But locating research on literacy instruction is not always as straightforward as it seems. At the time of this writing, typing the phrase “research-based literacy instruction” into the Google search bar yields well over three million hits. Furthermore, since the terms “researched,” “research-based,” and “evidence-based” are often used interchangeably, even using different search terms does not narrow the field very much. In other words, typing “research-based” into search engines is not an ideal strategy for finding approaches to literacy with a meaningful research base.

In an attempt to clarify which literacy programs and strategies have a strong research base, various policy groups² began using the term “scientifically-based research.” This term does carry a more precise meaning than “research-based”; however, to fully understand its importance, some background in scientific thinking is required. Although scientific thinking is important in guiding educational practices, it is not always appreciated or understood, partly because scientific thinking may be thought to apply only to hard sciences, such as chemistry, and not to fields like education. In addition, scientific thinking may be underused in education for reasons described by Stanovich and Stanovich (2003):

Educational practice has suffered greatly because its dominant model for resolving or adjudicating disputes has been more political (with its corresponding factions and interest groups) than scientific. The field’s failure to ground practice in the attitudes and values of science has made educators susceptible to the “authority syndrome” as well as fads and gimmicks that ignore evidence-based practice. (p. 5)

Based on these concerns, Stanovich and Stanovich recommend providing educators with background on how to think scientifically about literacy instruction so that the allure of gimmicks and

fads is replaced by an understanding of how scientific thinking contributes to the selection and use of educational practices that are most likely to be effective.

Scientifically-Based Research

Scientifically-based research includes a broad array of research methods to answer questions about literacy. For evaluating research evidence specifically about the effectiveness of programs and strategies, it can be helpful to use certain criteria such as those identified in the *No Child Left Behind Act* (2002), as well as specified in other educational resources (e.g., IDEA, 2004; Stanovich & Stanovich, 2003). First, scientifically-based research is empirical, which means that it involves the systematic gathering and analysis of data that have been collected, often using measures that are reliable (i.e., consistent) and valid (i.e., they test what they claim). Empirical research includes using observation to address problems in a field rather than exclusively relying on theories or using only logic. Often when people think of the word “research,” they think of the process of reviewing information in existing documents, like what is done to write a research paper in high school or college. While scientifically-based research does involve reviewing existing research, it also involves testing hypotheses using data, and this is one important way that scientifically-based research differs from the broader term “research.” Second, scientifically-based research uses research design strategies that control for factors that can interfere with evaluating a program or strategy’s effectiveness. Later in this chapter, this key component of scientifically-based research will be described in more detail when the characteristics of experimental design are discussed. Third, scientifically-based research is reported in enough detail so others know exactly what was done, and with whom. Last, scientifically-based research must undergo a review by independent experts in the field before being dispersed to research outlets. This scientific review is often called a “peer-review” and is intended to help maintain quality standards for research that is published in outlets such as academic journals. Despite this quality assurance component, standards for peer-review may be somewhat different among academic journals, and therefore, scientifically-based research must not only make it through a peer-reviewed process but also must meet each of the other criteria outlined above.

Where to Find Scientifically-Based Literacy Research

Panel reports

Fortunately, literacy approaches with a strong scientific research base are relatively easy to find because major literacy panels and clearinghouses regularly release summaries of findings, using criteria which are comparable to those outlined above. One of the most influential panel reports to date on school-aged children is the *Report of the National Reading Panel* (NRP; National Institute of Child Health and Human Development [NICHD], 2000), which serves as a suitable example for how findings from scientifically-based research studies can be combined and made readily accessible to educators. Panel reports are publicly released documents created by literacy experts, who synthesize findings from research designed to evaluate the effectiveness of instruction.

The NRP provided readers with research evidence regarding the effectiveness of five major instructional components of reading (i.e., phoneme awareness, phonics, fluency, vocabulary, and comprehension). Panel members searched available research on these components and analyzed the findings of studies that met the strict criteria of being scientifically-based. In a free summary report, panel members then shared instructional methods and strategies that were found to be most effective, along with suggestions for future research (NICHD, 2000).

Literacy panels typically analyze study findings using a process called meta-analysis. While the particulars of meta-analysis are not needed to understand its value, it is important to know a little about why it is used and how findings are reported. Meta-analysis involves taking the findings from many studies and combining them to draw conclusions. In the case of the NRP, a series of meta-

analyses was conducted to draw conclusions about the most effective approaches to reading instruction. You might wonder how findings across multiple studies on an approach to reading can be combined when studies differ in so many ways. The way researchers do this is by converting study findings to a common metric called an “effect size.” When a group who receives an intervention significantly outperforms a group who did not receive it, an effect size reveals how much better one group did over the other. Panels can average effect sizes across studies and compare them to decide which approaches have a greater positive effect on learning. This kind of analysis reveals the strengths (or weaknesses) of instructional approaches across a large collection of scientifically-based studies, rather than basing conclusions on findings from a single study.

Many examples of meta-analyses are featured in the NRP in which effect sizes were compared across multiple studies. The first major finding in the report related to the value of teaching phonemic awareness³ to young children. Phonemic awareness, as defined in the NRP is “the ability to focus on and manipulate phonemes in spoken words” (p. 2-1) and typically involves students being taught how to break apart and/or blend sounds in spoken words. When considering the collective findings from 52 studies, the panel found that teaching phonemic awareness to young students resulted in a strong, positive effect⁴ ($d = .86$) for improving phonemic awareness outcomes compared to students who were not taught it.

Larger effect sizes are found when an intervention group outperforms a control group. When effect sizes are compared across studies to determine which instructional approaches were most and least effective, teachers are then able to know which approaches brought about the most benefits to students. See Table 1 for more information about how to interpret the strength of effect sizes.

Table 1. *Interpretation of Intervention Effect Sizes (Cohen, 1988)*

Effect Size (d)	Qualitative Descriptor
.20	Small Effect
.50	Medium Effect
.80	Large Effect

In the NRP report, effect sizes are reported for each of the major reading components, including phonemic awareness, phonics, fluency, vocabulary, and comprehension. The information is accessible to anyone who is interested in reading more about scientifically-based literacy practices and represents the most dependable findings available about reading up to the date of this publication.

Another panel report worth exploring is *Developing Early Literacy: Report of the National Early Literacy Panel* (NELP; National Center for Family Literacy, National Early Literacy Panel, & National Institute for Literacy, 2008). This report includes findings from scientifically-based research relevant to children ages birth to five, as well as useful recommendations regarding approaches to literacy which have strongest and most reliable effects for very young children.

Sources of scientifically-based literacy research designed to evaluate the effectiveness of literacy programs and strategies, such as panel reports, are vital documents for educators to know about and review. Unfortunately, panel reports take a long time to compile, and consequently, are released only intermittently. After a few years, as new research emerges, the reports can become dated. More current meta-analyses can often be found in academic journals, which are helpful to mine for scientifically-based findings, though readers must carefully review the criteria used to include and exclude studies. These criteria may differ from those used by panel reviewers, and interpretation of meta-analytic findings hinges on the quality of the studies reviewed. Also, because journal article meta-analyses may be written in more technical terms than those provided in panel report sum-

maries, readers of these meta-analyses may find it beneficial to consult with someone with expertise in both literacy and statistics.

Clearinghouse and website outlets

Another way to access scientifically-based research findings is by searching research-based clearinghouses and websites. Unlike many panel reports, findings on research-based websites tend to remain more current, since they are easily updated to include findings from the most recent research in the field. Presently, the What Works Clearinghouse website (WWC; U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, n.d.) is one of the most widely accessed websites containing scientifically-based literacy research findings. Clearinghouses use similar criteria as literacy panelists to review available research on the effectiveness of instructional methods and strategies. WWC provides information about educational programs, policies, and strategies and can be helpful in making instructional decisions. Despite its popularity, some organizations, such as the National Institute for Direct Instruction (NIFDI, 2015) have criticized WWC for ignoring intervention programs that should have been reviewed, for ignoring and/or misinterpreting research findings, and for incorrectly classifying a program's effectiveness. Other researchers, including Timothy Shanahan (2015), who serves as an advisor to WWC, continue to advocate for the value of WWC because it “serves as a kind of *Good Housekeeping* seal of approval” (para. 3) in that WWC reviewers have no financial stake in programs that they review. A lack of financial interest is not always true for publishers and some researchers. Information about how to navigate the WWC website is presented next; however, because there is not universal agreement across organizations regarding the worth of WWC, it is recommended that educators seek information from a variety of resources to make decisions about literacy programs and strategies they use or may consider using.

For users of the WWC site, topics can be explored by clicking on links to “topics in education,” “publications and reviews,” “find what works,” or other links to recent news or events in education. To “find what works,” users click this tab, which takes them to a menu of options allowing comparisons of interventions frequently used in schools. Users then indicate the domain of interventions of interest to them—in this case—literacy, which is accessed by clicking the “literacy” box. A general list of interventions appears, sorted by literacy outcomes measured. For example, studies that measured intervention effects for alphabets (i.e., phonemic awareness and phonics) appear, along with an improvement index, an effectiveness rating (an estimation of the average impact of the intervention), and a descriptor of the extent of the evidence supporting the intervention (i.e., small, medium, large). By clicking on underlined terms, pop-ups appear with explanations of what terms mean and how to use them. Users can also search for a specific program to see if it has been reviewed or examine lists of existing programs for which the clearinghouse has created reports.

A search for *Brain Gym* on the WWC site does not yield any results. This is due, at least in part, to the fact that there are no studies that meet the WWC design standards providing evidence for its use, and because the original claims featured in the teacher's manual were likely not sufficiently credible for researchers to invest time or money to evaluate them. Conversely, a search for “repeated reading” yields a number of findings of potential interest, including a report regarding the use of repeated reading with students with learning disabilities. According to WWC, there is a small amount of evidence that using repeated reading with students with learning disabilities can lead to improvements in reading comprehension. On the other hand, there is no consistent evidence provided for using repeated reading to improve alphabetic knowledge, reading fluency, or general reading achievement.

Although panel reports and research-based websites can be good options for accessing findings from scientifically-based research, the design standards required for studies to be included on some of the sites, such as WWC, are more rigorous than most academic journal standards, and according

to some critics, are too rigorous. Educators will want to keep this criticism in mind, since studies of potential interest may be excluded from these sources because of technical, design, or statistical problems. In cases where research is missing from these sources, it may be useful to search academic journals for additional information about a program or contact publishers directly for research studies. Academic journals are periodicals released monthly or four times per year that include articles related to academic disciplines, such as education. Educational research published in academic journals is typically peer-reviewed (though not always), and these journals usually contain articles related to specific themes, such as literacy teaching and learning, language development, intervention, teacher preparation, educational assessment, and educational policy. College and university libraries provide students and faculty free access to most education journals, and those to which a library does not subscribe can be accessed through a library's interlibrary loan system. Examples of some of the top academic journals related to literacy include *Reading Research Quarterly* and the *Journal of Educational Psychology*; however, there are numerous other high quality journals available internationally, as well as journals that focus on specialized areas of literacy, such as English language learners, reading disabilities, or curriculum.

When you access academic journal articles or information obtained from publishers to determine the research base of a literacy program or strategy, it is important to understand the purpose of the research. For example, if a report or article makes a claim that a program causes a change for one group over another, it is important to keep in mind criteria for scientifically-based research. Knowing these criteria will help you be wary of advertisers' claims based solely on opinions, testimonies, and anecdotes. If a report or article summarizes research that does not use scientifically-based research, information may still be valuable, as long as researchers do not overstep the claims that can be made. For instance, if researchers were interested in whether maternal education and children's vocabulary knowledge were correlated, conducting a study could potentially help researchers understand relationships among variables. It would be a problem, however, if the researchers claimed that maternal education *causes* children to have different levels of vocabulary knowledge.

Although the WWC site is known for its focus on literacy research, visitors to the site can also find reviews on other important topics such as dropout prevention, math and science instruction, and behavioral interventions. Table 2 provides links to selected clearinghouse summaries, panel reports and other guiding documents useful for locating the research base for many literacy approaches currently used in schools. The link titled *Reviews of Collections of Programs, Curricula, Practices, Policies, and Tools: Evaluated According to Evidence*, compiled by Smith-Davis (2009), is a collection of dozens of meta-analyses at all grade levels and is particularly beneficial to explore.

Because this chapter is centered on scientifically-based literacy research, it is this type of research that gets the most coverage, but there are many other types of literacy research that inform literacy education. The benefits of a wide variety of literacy research will be discussed a little later in this chapter, as well as throughout the chapters in this textbook, where a broad array of research methods are featured.

Table 2. *Links to Selected Clearinghouse Summaries, Panel Reports, and Meta-Analyses*

Reports	Links
Reviews of Collections of Programs, Curricula, Practices, Policies, and Tools: Evaluated According to Evidence	http://nirn.fpg.unc.edu
What Works Clearinghouse	http://ies.ed.gov/ncee/wwc
Report of the National Reading Panel: Teaching Children to Read (Reports of the Subgroups)	http://www.nichd.nih.gov

Reports	Links
Developing Early Literacy Skills: A Meta-Analysis of Alphabet Learning and Instruction Developing Early Literacy Skills: A Meta-Analysis of Alphabet Learning and Instruction Developing Early Literacy Skills: A Meta-Analysis of Alphabet Learning and Instruction	http://www.ncbi.nlm.nih.gov
Developing Early Literacy: Report of the National Early Literacy Panel	http://lincs.ed.gov
Writing to Read: Evidence for How Writing Can Improve Reading	https://www.carnegie.org

The Importance of Experimental Design in Literacy Research

A close examination of literacy programs and strategies classified as scientifically-based shows a heavy reliance on experimental design, when the goal of the research is to investigate effectiveness. Experimental design⁵ typically involves researchers randomly assigning participants to intervention and control groups. In schools, the word “intervention” often refers to services provided to students experiencing some sort of academic difficulty, but in experimental education studies, the term intervention is typically used more broadly to signify that a group of deliberately selected participants, who may or may not be at-risk for literacy-related difficulties, will receive some new instructional component or strategy to test its effectiveness.

In experimental literacy research, participants in an intervention group receive an intervention, while participants in a control (or comparison) group receive another competing intervention or sometimes no intervention at all. Although the use of random assignment may sound like technical nonsense, appreciating its importance is critical for understanding differences among literacy studies.

To illustrate the advantage of a researcher using experimental design for evaluating the effectiveness of an intervention, consider this example. Suppose as a researcher, I want to determine whether a repeated reading intervention causes students to read more fluently. To answer this question, I take a group of 100 children, measure their reading fluency, add a repeated reading intervention to their instructional day, and then assess my outcome. I find that my participants’ reading fluency increased considerably. Can I conclude that my repeated reading intervention was effective because it caused the improvement? Unfortunately, no. My students were still receiving their regular ELA instruction—maybe this caused the gains I observed. Maybe the students’ reading fluency improved as a result of having more reading experiences everywhere—not just what they received during my intervention. These potential competing explanations could easily account for the increases in reading fluency I detected, and because my design did not have a comparison group that allowed me to rule out these competing explanations, my study is seriously flawed for assessing the effectiveness of repeated reading.

Knowing that I neglected to include a comparison group, I try again. This time, I provide repeated reading to half of the students, while the other half of the students read with a partner. Now I have two competing interventions, and if I deliver them with the same frequency and duration, I have definitely improved my design. Then, I test both groups after delivering the interventions and find the repeated reading group scored significantly higher than the partner reading group. Can I finally conclude that my repeated reading intervention caused the differences? Unfortunately, no (again). There is every chance that my groups started out with unequal reading fluency even before the interventions were delivered (and were probably unequal in other ways, too). Since I gathered no data on the students prior to intervention, an important competing explanation simply cannot be ruled out—my repeated reading group may have started out higher in reading fluency. So, I still cannot conclude much of anything about the effectiveness of my intervention.

Finally, I decide to randomly assign my participants to groups—repeated reading and reading with a partner. This time I decide to use experimental design, and if my groups are sufficiently large,

I have likely eliminated all meaningful differences between groups before delivering my interventions. Although even random assignment does not guarantee with 100% certainty that groups will be equivalent,⁶ it is the best method available to create equivalent groups from a research design standpoint. By using random assignment, my groups of students should be statistically equal according to age, gender, preintervention reading fluency ability, cognitive abilities, and socioeconomic status. This time, if I find statistically significant differences in favor of the repeated reading group, I may be able to reasonably conclude that the repeated reading intervention plays a role in *causing* the differences, if other scientifically-based criteria are also met.

It is also recognized that sometimes, intervention studies that do not use random assignment may be of sufficient quality to still be considered scientifically-based. Research that tests the effects of an intervention but does not include random assignment to groups is often referred to as “quasi-experimental” research and is used when it may not be possible, practical, or ethical to randomly assign students to groups. When researchers use quasi-experimental design to assess the impact of instructional strategies, they must also provide evidence that the groups are equivalent prior to intervention, or if the groups are not equivalent, that statistical adjustments were made to remove preintervention differences. These statistical controls are why some quasi-experimental designs may also be classified as scientifically-based. WWC includes some quasi-experimental studies in their reviews but classifies them as meeting design standards “with reservations.” This more tentative classification is used because research that does not include random assignment to groups does not meet the same standard as experimental design.

Another thought to keep in mind when reviewing scientifically-based studies is to whom the findings actually apply. This decision requires knowledge about the characteristics of the participants who were included in the studies, since an intervention found to be effective with one participant sample may or may not carry over (i.e., generalize) to other students. If the participants in the study were mostly White students from high income neighborhoods, will this “effective” intervention still result in significant gains with a more diverse population of students? Analogous to this situation is when in the not-too-distant past, medications that were tested only on men were commonly prescribed for women and children because it was assumed that positive effects were universal rather than sample specific. While findings from studies including only men *may* generalize to women and children, in reality, we cannot actually know a drug’s effectiveness for these populations until we have actual evidence from studies that include women and children. This same logic applies when reviewing findings from scientifically-based literacy approaches as well by making sure to ask, “To whom do these findings actually apply?”

Additional Forms of Research

Unlike findings from experimental studies, results from other types of studies are not usually used to determine the effectiveness of an instructional approach to literacy, although they are often a first step in the search for effective approaches. For example, simple correlational studies, which investigate relationships between variables, can be helpful to researchers who make decisions about what variables to test for effectiveness, but correlational findings are especially difficult to interpret when trying to assess cause and effect. For example, although there is a measurable relationship between owning a passport and not being diagnosed with diabetes (Wade, 2011), it does not follow that owning a passport *prevents* diabetes. When other potential explanations are considered, such as the fact that people with higher incomes are less likely to be obese, can afford healthier food, can obtain better medical care, and can afford to travel abroad, it becomes clear that the relationship between passports and diabetes does not mean that one causes the other. In other words, even though a lack of passport ownership and having diabetes are *statistically* related, they are not *causally* related. Using

this reasoning, simple correlational research does not do a good job of evaluating cause and effect, in part, because alternative causes of an effect are not well controlled.

On the other hand, more sophisticated correlational research where important variables are controlled can help researchers focus in on possible causes. For example, think about a researcher who wants to understand the nature of the relationship between the number of books children have in their home and school achievement. Is the relationship between books and achievement accounted for by how much families read with their children, or perhaps the number of books is simply related to family income? Is it possible that families with higher incomes not only can afford more books but also can afford a host of other learning opportunities for their children? Perhaps having more books in the home is simply an indicator of learning opportunities that lead to achievement rather than the books being the cause. What a researcher can do is look at the relationship between books in the home and student achievement, while removing the effects of income (i.e., controlling for this variable). If the books are not having any effect, then the relationship (i.e., correlation) between books and achievement will disappear. The researcher still does not know exactly what is influencing achievement but may be able to rule out a possible cause. Thus, a campaign to provide lower income families with lots of books may be valuable for a number of reasons; however, it may be off track if the goal is to increase student achievement, depending on the findings of the study. This example shows how more sophisticated correlational research can help inform literacy program and strategy decisions.

Other research methods, such as qualitative research, are also useful for informing literacy practices. Qualitative research frequently involves observing and interviewing participants to obtain detailed accounts of their personal experiences and perspectives. These methods meet the criteria for being classified as empirical research, since observations are gathered and analyzed, but they are not necessarily used when the goal is to evaluate the overall effectiveness of programs or strategies. In qualitative studies, researchers do not focus on testing hypotheses and typically do not try to exert strict control in their studies. These less rigid characteristics of qualitative research are desirable for exploring literacy processes that are unmeasurable or are very complex (e.g., exploring how students make meaning of texts based on their own cultural backgrounds and experiences). Like correlational research, qualitative research can provide valuable information toward the formation of new theories and can inform literacy instruction by exploring what *may be* effective, and additional research that is more controlled can help determine what *is* effective.

It is important to note that some people take issue with classifying research based on more narrow definitions of scientifically-based research because if research is not recognized as scientifically based, it may be mistakenly thought of as not being valuable, especially by individuals who lack background in how different research strategies inform literacy teaching and learning. For example, some people may assume that quantitative research involving hypothesis testing is always more valuable than other forms of inquiry; however, since all forms of literacy research build upon the findings from other studies, all forms of research have potential value when they serve to refine future research to inform literacy practices. To avoid the trap of demeaning certain types of research, it is best to keep in mind the actual goal of the research when determining its value. To assess cause and effect, experimental studies are most useful, whereas to understand complex literacy perspectives and processes, a wider variety of methods are used. Both the quality and value of research must always be tied to questions the research was designed to answer, and the extent to which it answers them, rather than tied to a superficial sorting based solely on the methods used.

Approaches with No Research Base

After gaining an understanding of different types of literacy research, it makes sense to also reflect on literacy approaches that have no research base. While it may seem unacceptable to even consider using a literacy program or strategy that has no research supporting it, a lack of a research base may

simply indicate an approach is too new to have allowed anyone to complete a well-designed study, or an approach may be too indistinct or too narrow to capture any researcher's interests. For example, a scientifically-based research study is not likely to happen that compares whether reading one storybook versus another one is better to teach children about penguins. Keep in mind that research designed to evaluate the general effectiveness of literacy programs and strategies is time consuming and expensive, so many decisions teachers make will not have this kind of research base supporting it.

It is also possible that an approach to literacy instruction is not worth the time and resources to evaluate because it is so unlikely to have a meaningful effect, based on what is already known about literacy from other research. In addition, research on certain approaches to literacy may appear like they have not been researched, but this may be because the term someone is using to search for the approach may not be the same term used by researchers. Each of these possibilities is explained in further detail below.

Approaches which are too new

An example of literacy instruction that may be too new to have garnered research evidence might involve a recently released intervention program. When the research base of educational claims is unclear, it is useful to refer to strategies in Daniel Willingham's work, including his brief article *Measured Approach or Magic Elixir: How to Tell Good Science from Bad* (2012a), and his book *When Can You Trust the Experts: How to Tell Good Science from Bad Science in Education?* (2012b). In both of these resources, Willingham recommends using a series of shortcuts to strip down claims and evaluate their credibility.

Consider this claim: *Over half of our children are not achieving literacy goals and need your help! Research shows that using Program X will not only help your students achieve but also help you become a more effective teacher. Act now to restore the love of learning to your students.* What Willingham (2012b) recommends first is to strip the claim down. In the above example, this involves removing any emotion from it. For example, the terms "help," and "effective teacher" are used to influence emotions, and emotional reasoning is not a strong foundation for making educational decisions. Who wants to help children and become a more effective teacher? All of us, but whether a program can succeed in meeting these goals is a matter of evidence, not emotion.

Second, Willingham recommends tracing the claim to the source to see if it is simply an appeal to an authority or if there is evidence for it. Is the claim associated with someone held in high status only or is there an actual basis for the claim in terms of credible evidence? Willingham discusses What Works Clearinghouse (WWC) as an "attempt to solve the problem of authority in education" (p. 181) by distributing information based on scientific evidence. Willingham also reinforces the point that the standards used to determine which studies are included are so strict for WWC that other valuable studies may be overlooked.

Willingham's third step in evaluating educational claims involves analyzing the quality of evidence, using criteria related to scientific thinking, as well as the reader's own personal experiences as reference points. Willingham's fourth step involves bringing all of the evidence together to make a decision, while using other strategies to keep our personal belief systems from biasing our views. For example, we may view weak evidence as being strong because it is consistent with our beliefs, or we may dismiss strong evidence as weak because it goes against them. In addition to Willingham's work, the publication by Stanovich and Stanovich (2003) discussed earlier in this chapter titled *Using Research and Reason in Education* is also foundational for developing scientific thinking related to research evidence. It may be useful to seek information from multiple sources, and reflect on the different examples and perspectives provided in each, to learn more about how to evaluate educational research.

Approaches which are too narrow

Some approaches to literacy instruction may not have been researched because they are too narrow to capture a researcher's attention or are an isolated strategy that would be unlikely to have a detectable effect in itself. An example might be using a particular hand signal to get students' attention during ELA instruction. This strategy would not necessarily be researched because it would be difficult to justify a full-blown scientific investigation into an isolated hand signal compared to the potential value in investigating a new reading intervention. The lack of formal research does not mean that the hand signal should not be used but simply that the teacher is tasked with determining whether it helps to meet his or her objectives within the classroom.

Approaches which lack validity

Still, other approaches may lack research attention because claims attached to them are highly unlikely to be valid, based on what is known from previously published literacy research. For example, some of the claims associated with the early edition of *Brain Gym* fall into this category. It just does not make sense for researchers to invest time and resources determining whether movements like "brain buttons" promote the "correction of letter and number reversals" (Dennison and Dennison, 1989, p. 25), since there is no convincing reason this might be the case.

Approaches which use different terms

Finally, a literacy strategy may not appear to have a research base because key search terms are inconsistent. For example, a search for "whisper phones" (the familiar name used to describe bent pieces of plastic pipe students can hold up to their ear to hear themselves whisper read without disturbing others), yields some hits when entered into the Google search bar but no hits when entered into the Google Scholar search bar. On the other hand, a search for "whisper phones" reveals at least three dozen mentions on Google Scholar, though most of these mentions appear unrelated to any investigation of their effects. When a literacy strategy or program is just mentioned in academic journal articles, this can sometimes mislead individuals into thinking they have been researched. Closer inspection may reveal that an article may include only comment on the use of the strategy rather than evidence of its effects. Many articles published in academic journals or scholarly books on literacy teaching that are not empirical may still provide a synthesis of other empirical work or may offer theories that are valuable to test. Non-empirical articles are often extremely valuable for explaining the logic behind why an approach to literacy teaching should work, but in the absence of empirical evidence, even well-developed theories provide only limited support for a literacy approach and would definitely not be classified as a scientific research base.

When there is no apparent research evidence to a literacy approach, it is important to be cautious, flexible, and open to modifying or even discontinuing the approach if new and/or clarifying research emerges. This is a judgment call, and using scientific thinking can increase the likelihood of making decisions that will benefit students. Making instructional decisions based on research can be complicated, especially when publishers promote their products using language designed to provoke trust in claims (e.g., "Mrs. Smith found our program helped all of her students achieve more! So buy our research-based program today!"). It is important to be skeptical of any claims that do not have credible evidence to back them up.

In reality, many commercially available programs do not have peer-reviewed research backing them, and therefore, a search for them in academic journals, on clearinghouse sites, or in panel reports may not yield any results. For example, there is a much deeper research base for some areas of literacy teaching and learning compared to others, so educators seeking information are much more likely to find it on reading programs compared to writing programs. Even if specific programs have not been directly researched, many of the *strategies* found in commercially available programs have been researched and can be found in each of the sources listed at the beginning of this

paragraph. For example, a particular phonemic awareness intervention program may not have been researched, but its scope, sequence, and delivery may be nearly identical to other programs that have been found to be highly effective in scientifically-based studies. In cases like this, findings from the researched program may also apply to the non-researched program when both programs are used under similar conditions (e.g., similar group sizes, with students in the same grade, etc.).

The Importance of Monitoring Student Progress

Although teachers and administrators who access panel and clearinghouse reports and who use criteria in Willingham (2012b) are well-positioned in the selection and/or delivery of scientifically-based literacy instruction, an additional step is still needed to make instructional decisions. It is essential to make sure that the instruction used is effective *in practice*—not just in research studies. To differentiate students who respond well to a literacy approach from those who do not, progress-monitoring strategies help with decisions related to whether to continue to use a literacy approach. For detailed information about progress-monitoring strategies, please see Chapter 5 in this textbook.

To illustrate the rationale for progress monitoring, consider this analogy. I am not feeling well, and the doctor I see determines that my blood pressure is elevated to the point where medical intervention is needed. She prescribes an anti-hypertensive drug, and when I inquire about research related to its effectiveness, she shares a brochure with me featuring findings from a number of well-designed scientific studies. The studies clearly demonstrated that not only did the medication significantly lower participants' blood pressure more than a placebo (i.e., sugar pill) but even outperformed the two leading anti-hypertensive drugs currently available. Additionally, the participants in the drug trials were quite similar to me, making it reasonable to predict that the drug may, in fact, work for me, too.

The doctor then happily writes me a prescription for a three-month supply of the drug and lets me know that she will gladly refill the prescription over the phone, as needed. She assures me that I do not need to come back to check my blood pressure or for a physical examination, since the medication *should* be effective, based on the research. Suddenly, I feel uneasy, and this time, it is not my blood pressure that is causing it. While I understand the logic of her prescribing the drug, I do not understand her rationale for just letting me take it without checking in to see if it is actually working for *me*. Making an assumption that drug trial study findings automatically apply to me is dangerous.

Similarly, even if there is a strong, scientific foundation for an approach to literacy, this does not guarantee that the approach will work for all students. Even if a scientific study shows an intervention to be effective overall, invariably, some students in the study who received the “effective” intervention likely did not respond well. These details are not usually reported in studies, not because the researchers are withholding vital information but simply because the motivation for an intervention study typically is to evaluate overall effectiveness, not effectiveness for individual students. So predictions about how individual students are *likely* to respond to a literacy approach are often rooted in scientific research, whereas determining how students *actually* respond to the approach is rooted in school-based progress-monitoring strategies.

Summary

Making decisions about approaches to literacy instruction can be challenging. Which approaches are effective based on scientifically-based research can often be found by accessing documents and websites such as clearinghouse and panel reports. On the other hand, many programs and strategies have not been formally researched, and therefore, it can be useful to employ other strategies, such as those offered by Willingham (2012a, 2012b) to think through claims made by promoters. It

is important to understand how different forms of research can inform literacy instruction, such as when decisions should be grounded in research designed to evaluate effectiveness, such as experimental research, or when they should be grounded in other types of research, such as correlational or qualitative research.

Not only are teachers tasked with making decisions about using literacy programs and strategies, but often these decisions are made by groups of individuals at all levels of the educational hierarchy. Literacy program decisions are also made by curriculum committees, district administrators, and even boards of education, in which members may or may not be aware of the different levels of research evidence backing the programs they choose to adopt. When teachers develop background knowledge to evaluate the quality of research evidence, they not only make better decisions themselves but can also serve as better informed advocates and advisors to these groups.

Although many educational approaches to literacy have not been well researched, when scientific support can be found, this can help narrow the field of choices. Decisions still require attention to the generalizability of study findings based on students who were included in studies. And even the strongest scientific evidence does not guarantee that an approach to literacy that *should* work *will* work. For this reason, learning must be closely monitored using procedures such as those described in further detail in Chapter 5 of this textbook. Monitoring student progress can be especially helpful when trying strategies that may not fall into policy-based definitions of scientifically-based research, since ultimately, the most important effect for teachers to measure is how well a strategy or program works for children in their classrooms. Information presented in this chapter provides a gateway to future opportunities for learning more about research that can maximize students' literacy learning.

Questions and Activities

1. Describe different ways that literacy topics are researched.
2. According to the policy-based definition presented at the beginning of this chapter, explain what characterizes scientifically-based literacy research, how is it different from other forms of research, and why literacy panel reports and *What Works Clearinghouse* privilege studies that use experimental design.
3. Describe what an effect size is and why is it important in evaluating the effectiveness of an intervention.
4. Describe ways that non-experimental approaches to research, such as correlational and qualitative research, inform the field of literacy teaching and learning.
5. Debate in what instances a qualitative approach to research would be better than using an experimental approach. In what instances would using an experimental approach be more applicable? When might correlational research be most useful?
6. Explain what needs to be considered when no research is available on a literacy approach carrying the claim of being “highly effective.”
7. Discuss why monitoring students' progress in literacy is important, particularly when a new approach to literacy instruction is used.

References

- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Dennison, P. E., & Dennison, G. E. (1989). *Brain Gym: Teacher's Edition Revised*. Ventura, CA: Edu-Kinesthetics, Inc.

- Dennison, P. E., & Dennison, G. E. (2010). *Brain Gym: Teacher's Edition*. Ventura, CA: Hearts at Play, Inc.
- Individuals with Disabilities Education Improvement Act of 2004, Pub. L. 108-446, 118 Stat. 2647 (2004).
- National Center for Family Literacy, National Early Literacy Panel, & National Institute for Literacy (U.S.). (2008). *Developing early literacy: Report of the National Early Literacy Panel: A scientific synthesis of early literacy development and implications for intervention*. Washington, DC: National Institute for Literacy. Retrieved from <http://lincs.ed.gov/publications/pdf/NELPReport09.pdf>.
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups* (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf>
- National Institute for Direct Instruction. (2015). *What works clearinghouse*. Retrieved from <http://www.nifdi.org/research/reviews-of-di/what-works-clearinghouse>
- No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).
- Shanahan, T. (2015, April 5). Response to complaint about What Works Clearinghouse. Message posted to <http://www.shanahanonliteracy.com/2015/04/response-to-complaint-about-what-works.html>
- Stanovich, P. J., & Stanovich, K. E. (2003). *Using research and reason in education: How teachers can use scientifically based research to make curricular & instructional decisions*. Washington, DC: National Institute of Child Health and Human Development. Retrieved from https://lincs.ed.gov/publications/pdf/Stanovich_Color.pdf
- U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. (n.d.). *What works clearinghouse*. Retrieved from <http://ies.ed.gov/ncee/wwc/aboutus.aspx>
- Wade, L. (2011, March 18). Spurious relationship: Passport ownership and diabetes. [Web log posting]. Retrieved from <http://thesocietypages.org/socimages/2011/03/18/illustrating-a-spurious-relationship-passport-ownership-and-diabetes/>
- Willingham, D. T. (2012a, Fall). Measured approach or magical elixir? How to tell good science from bad. *American Educator*, 36, 4-12, 40.
- Willingham, D. T. (2012b). *When can you trust the experts? How to tell good science from bad in education*. San Francisco, CA: Jossey-Bass.

Endnotes

- 1: Which, admittedly, contains softer claims, though some are still concerning. [Return](#)
- 2: *No Child Left Behind Act* (2002); *Individuals with Disabilities Education Improvement Act* (IDEA, 2004) [Return](#)
- 3: For detailed information on teaching phonemic awareness, please see Chapter 3 by Murray in this volume. [Return](#)
- 4: The effect size reported here is a Cohen's *d* and shows how much better the students who received phonemic awareness instruction did compared to those who did not receive it, in standard deviations. [Return](#)
- 5: Some experimental studies may use a "within-subjects design" in which a single group of participants receives alternating treatments. Other experimental studies may use "single subject design" in which a single participant receives a treatment. [Return](#)

6: A researcher could also pretest students to make sure there are no differences between groups before intervention rather than assuming that the groups are equivalent because of random assignment. [Return](#)

3. Word Recognition Skills: One of Two Essential Components of Reading Comprehension

Maria S. Murray

Abstract

After acknowledging the contributions of recent scientific discoveries in reading that have led to new understandings of reading processes and reading instruction, this chapter focuses on word recognition, one of the two essential components in the Simple View of Reading. The next chapter focuses on the other essential component, language comprehension. The Simple View of Reading is a model, or a representation, of how skillful reading comprehension develops. Although the *Report of the National Reading Panel* (NRP; National Institute of Child Health and Human Development [NICHD], 2000) concluded that the best reading instruction incorporates explicit instruction in five areas (phonemic awareness, phonics, fluency, vocabulary, and comprehension), its purpose was to review hundreds of research studies to let instructors know the most effective evidence-based methods for teaching each. These five areas are featured in the Simple View of Reading in such a way that we can see how the subskills ultimately contribute to two essential components for skillful reading comprehension. Children require many skills and elements to gain word recognition (e.g., phoneme awareness, phonics), and many skills and elements to gain language comprehension (e.g., vocabulary). Ultimately, the ability to read words (word recognition) and understand those words (language comprehension) lead to skillful reading comprehension. Both this chapter and the next chapter present the skills, elements, and components of reading using the framework of the Simple View of Reading, and in this particular chapter, the focus is on elements that contribute to automatic word recognition. An explanation of each element's importance is provided, along with recommendations of research-based instructional activities for each.

Learning Objectives

After reading this chapter, readers will be able to

1. identify the underlying elements of word recognition;
2. identify research-based instructional activities to teach phonological awareness, decoding, and sight recognition of irregular sight words;
3. discuss how the underlying elements of word recognition lead to successful reading comprehension.

Introduction

Throughout history, many seemingly logical beliefs have been debunked through research and science. Alchemists once believed lead could be turned into gold. Physicians once assumed the flushed red skin that occurred during a fever was due to an abundance of blood, and so the “cure” was to remove the excess using leeches (Worsley, 2011). People believed that the earth was flat, that

the sun orbited the earth, and until the discovery of microorganisms such as bacteria and viruses, they believed that epidemics and plagues were caused by bad air (Byrne, 2012). One by one, these misconceptions were dispelled as a result of scientific discovery. The same can be said for misconceptions in education, particularly in how children learn to read and how they should be taught to read.¹

In just the last few decades there has been a massive shift in what is known about the processes of learning to read. Hundreds of scientific studies have provided us with valuable knowledge regarding what occurs in our brains as we read. For example, we now know there are specific areas in the brain that process the sounds in our spoken words, dispelling prior beliefs that reading is a visual activity requiring memorization (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001). Also, we now know how the reading processes of students who learn to read with ease differ from those who find learning to read difficult. For example, we have learned that irregular eye movements do not cause reading difficulty. Many clever experiments (see Rayner et al., 2001) have shown that skilled readers' eye movements during reading are smoother than struggling readers' because they are able to read with such ease that they do not have to continually stop to figure out letters and words. Perhaps most valuable to future teachers is the fact that a multitude of studies have converged, showing us which instruction is most effective in helping people learn to read. For instance, we now know that phonics instruction that is systematic (i.e., phonics elements are taught in an organized sequence that progresses from the simplest patterns to those that are more complex) and explicit (i.e., the teacher explicitly points out what is being taught as opposed to allowing students to figure it out on their own) is most effective for teaching students to read words (NRP, 2000).

As you will learn, word recognition, or the ability to read words accurately and automatically, is a complex, multifaceted process that teachers must understand in order to provide effective instruction. Fortunately, we now know a great deal about how to teach word recognition due to important discoveries from current research. In this chapter, you will learn what research has shown to be the necessary elements for teaching the underlying skills and elements that lead to accurate and automatic word recognition, which is one of the two essential components that leads to skillful reading comprehension. In this textbook, reading comprehension is defined as “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow, 2002, p. xiii), as well as the “capacities, abilities, knowledge, and experiences” one brings to the reading situation (p. 11).

Learning to Read Words Is a Complex Process

It used to be a widely held belief by prominent literacy theorists, such as Goodman (1967), that learning to read, like learning to talk, is a natural process. It was thought that since children learn language and how to speak just by virtue of being spoken to, reading to and with children should naturally lead to learning to read, or recognize, words. Now we know it is not natural, even though it seems that some children “pick up reading” like a bird learns to fly. The human brain is wired from birth for speech, but this is not the case for reading the printed word. This is because what we read—our alphabetic script—is an invention, only available to humankind for the last 3,800 years (Dehaene, 2009). As a result, our brains have had to accommodate a new pathway to translate the squiggles that are our letters into the sounds of our spoken words that they symbolize. This seemingly simple task is, in actuality, a complex feat.

The alphabet is an amazing invention that allows us to represent both old and new words and ideas with just a few symbols. Despite its efficiency and simplicity, the alphabet is actually the root cause of reading difficulties for many people. The letters that make up our alphabet represent phonemes—individual speech sounds—or according to Dehaene, “atoms” of spoken words (as opposed to other scripts like Chinese whereby the characters represent larger units of speech such

as syllables or whole words). Individual speech sounds in spoken words (phonemes) are difficult to notice for approximately 25% to 40% of children (Adams, Foorman, Lundberg, & Beeler, 1998). In fact, for some children, the ability to notice, or become aware of the individual sounds in spoken words (phoneme awareness) proves to be one of the most difficult academic tasks they will ever encounter. If we were to ask, “How many sounds do you hear when I say ‘gum?’” some children may answer that they hear only one, because when we say the word “gum,” the sounds of /g/ /u/ and /m/ are seamless. (Note the // marks denote the sound made by a letter.) This means that the sounds are coarticulated; they overlap and melt into each other, forming an enveloped, single unit—the spoken word “gum.” There are no crisp boundaries between the sounds when we say the word “gum.” The /g/ sound folds into the /u/ sound, which then folds into the /m/ sound, with no breaks in between.

So why the difficulty and where does much of it begin? Our speech consists of whole words, but we *write* those words by breaking them down into their phonemes and representing each phoneme with letters. To read and write using our alphabetic script, children must first be able to notice and disconnect each of the sounds in spoken words. They must blend the individual sounds together to make a whole word (read). And they must segment the individual sounds to represent each with alphabetic letters (spell and write). This is the first stumbling block for so many in their literacy journeys—a difficulty in phoneme awareness simply because their brains happen to be wired in such a way as to make the sounds hard to notice. Research, through the use of brain imaging and various clever experiments, has shown how the brain must “teach itself” to accommodate this alphabet by creating a pathway between multiple areas (Dehaene, 2009).

Instruction incorporating phoneme awareness is likely to facilitate successful reading (Adams et al., 1998; Snow, Burns, & Griffin, 1998), and it is for this reason that it is a focus in early school experiences. For some children, phoneme awareness, along with exposure to additional fundamentals, such as how to hold a book, the concept of a word or sentence, or knowledge of the alphabet, may be learned before formal schooling begins. In addition to having such print experiences, oral experiences such as being talked to and read to within a literacy rich environment help to set the stage for reading. Children lacking these literacy experiences prior to starting school must rely heavily on their teachers to provide them.

The Simple View of Reading and the Strands of Early Literacy Development

Teachers of reading share the goal of helping students develop skillful reading comprehension. As mentioned previously, the Simple View of Reading (Gough & Tunmer, 1986) is a research-supported representation of how reading comprehension develops. It characterizes skillful reading comprehension as a combination of two separate but equally important components—word recognition skills and language comprehension ability. In other words, to unlock comprehension of text, two keys are required—being able to read the words on the page and understanding what the words and language mean within the texts children are reading (Davis, 2006). If a student cannot recognize words on the page accurately and automatically, fluency will be affected, and in turn, reading comprehension will suffer. Likewise, if a student has poor understanding of the meaning of the words, reading comprehension will suffer. Students who have success with reading comprehension are those who are skilled in both word recognition and language comprehension.

These two essential components of the Simple View of Reading are represented by an illustration by Scarborough (2002). In her illustration, seen in Figure 1, twisting ropes represent the underlying skills and elements that come together to form two necessary braids that represent the two essential components of reading comprehension. Although the model itself is called “simple” because it points out that reading comprehension is comprised of reading words and understand-

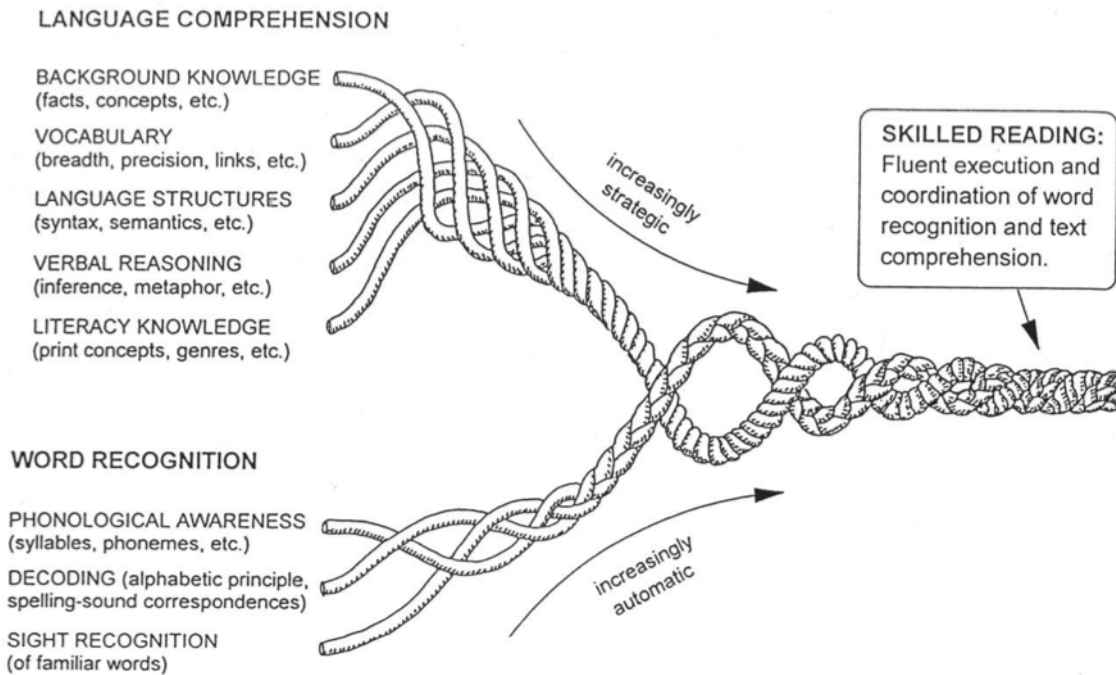


Figure 1. Strands of early literacy development. Reprinted from *Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice*, by H. S. Scarborough, in S. B. Newman & D. K. Dickinson (Eds.), 2002, *Handbook of early literacy research*, p. 98, Copyright 2002, New York, NY: Guilford Press. Reprinted with permission.

ing the language of the words, in truth the two components are quite complex. Examination of Scarborough's rope model reveals how multifaceted each is. For either of the two essential components to develop successfully, students need to be taught the elements necessary for automatic word recognition (i.e., phonological awareness, decoding, sight recognition of frequent/familiar words), and strategic language comprehension (i.e., background knowledge, vocabulary, verbal reasoning, literacy knowledge). The sections below will describe the importance of the three elements that lead to accurate word recognition and provide evidence-based instructional methods for each element. Chapter 4 in this textbook will cover the elements leading to strategic language comprehension.

Word Recognition

Word recognition is the act of seeing a word and recognizing its pronunciation immediately and without any conscious effort. If reading words requires conscious, effortful decoding, little attention is left for comprehension of a text to occur. Since reading comprehension is the ultimate goal in teaching children to read, a critical early objective is to ensure that they are able to read words with instant, automatic recognition (Garnett, 2011). What does automatic word recognition look like? Consider your own reading as an example. Assuming you are a skilled reader, it is likely that as you are looking at the words on this page, you cannot avoid reading them. It is impossible to suppress reading the words that you look at on a page. Because you have learned to instantly recognize so many words to the point of automaticity, a mere glance with no conscious effort is all it takes for word recognition to take place. Despite this word recognition that results from a mere glance at print, it is critical to understand that you have not simply recognized what the words look like as wholes, or familiar shapes. Even though we read so many words automatically and instan-

taneously, our brains still process every letter in the words *subconsciously*. This is evident when we spot misspellings. For example, when quickly glancing at the words in the familiar sentences, “Jack be nimble, Jack be quick. Jack jumped over the canbleslick,” you likely spotted a problem with a few of the individual letters. Yes, you instantly recognized the words, yet at the same time you noticed the individual letters within the words that are not correct.

To teach students word recognition so that they can achieve this automaticity, students require instruction in: phonological awareness, decoding, and sight recognition of high frequency words (e.g., “said,” “put”). Each of these elements is defined and their importance is described below, along with effective methods of instruction for each.

Phonological Awareness

One of the critical requirements for decoding, and ultimately word recognition, is phonological awareness (Snow et al., 1998). Phonological awareness is a broad term encompassing an awareness of various-sized units of sounds in spoken words such as rhymes (whole words), syllables (large parts of words), and phonemes (individual sounds). Hearing “cat” and “mat,” and being aware that they rhyme, is a form of phonological awareness, and rhyming is usually the easiest and earliest form that children acquire. Likewise, being able to break the spoken word “teacher” into two syllables is a form of phonological awareness that is more sophisticated. Phoneme awareness, as mentioned previously, is an awareness of the smallest individual units of sound in a spoken word—its phonemes; phoneme awareness is the most advanced level of phonological awareness. Upon hearing the word “sleigh,” children will be aware that there are three separate speech sounds—/s/ /l/ /ā/—despite the fact that they may have no idea what the word looks like in its printed form and despite the fact that they would likely have difficulty reading it.

Because the terms sound similar, phonological awareness is often confused with phoneme awareness. Teachers should know the difference because awareness of larger units of sound—such as rhymes and syllables—develops before awareness of individual phonemes, and instructional activities meant to develop one awareness may not be suitable for another. Teachers should also understand and remember that neither phonological awareness nor its most advanced form—phoneme awareness—has anything whatsoever to do with print or letters. The activities that are used to teach them are entirely auditory. To help remember this, simply picture that they can be performed by students if their eyes are closed. Adults can teach phonological awareness activities to a child in a car seat during a drive. The child can be told, “Say ‘cowboy.’ Now say ‘cowboy’ without saying ‘cow.’” Adults can teach phoneme awareness activities as well by asking, “What sound do you hear at the beginning of ‘sssun,’ ‘sssail,’ and ‘ssssoup?’” or, “In the word ‘snack,’ how many sounds do you hear?” or by saying, “Tell me the sounds you hear in ‘lap.’” Notice that the words would not be printed anywhere; only spoken words are required. Engaging in these game-like tasks with spoken words helps children develop the awareness of phonemes, which, along with additional instruction, will facilitate future word recognition.

Why phonological awareness is important

An abundance of research emerged in the 1970s documenting the importance of phoneme awareness (the most sophisticated form of phonological awareness) for learning to read and write (International Reading Association, 1998). Failing to develop this awareness of the sounds in spoken words leads to difficulties learning the relationship between speech and print that is necessary for learning to read (Snow et al., 1998). This difficulty can sometimes be linked to specific underlying causes, such as a lack of instructional experiences to help children develop phoneme awareness, or neurobiological differences that make developing an awareness of phonemes more difficult for some children (Rayner et al., 2001). Phoneme awareness facilitates the essential connection that is “reading”: the sequences of individual sounds in spoken words match up to sequences of printed letters

on a page. To illustrate the connection between phoneme awareness and reading, picture the steps that children must perform as they are beginning to read and spell words. First, they must accurately sound out the letters, one at a time, holding them in memory, and then blend them together correctly to form a word. Conversely, when beginning to spell words, they must segment a spoken word (even if it is not audible they are still “hearing the word” in their minds) into its phonemes and then represent each phoneme with its corresponding letter(s). Therefore, both reading and spelling are dependent on the ability to segment and blend phonemes, as well as match the sounds to letters, and as stated previously, some students have great difficulty developing these skills. The good news is that these important skills can be effectively taught, which leads to a discussion about the most effective ways to teach phonological (and phoneme) awareness.

Phonological awareness instruction

The National Reading Panel (NRP, 2000) report synthesized 52 experimental studies that featured instructional activities involving both phonological awareness (e.g., categorizing words similar in either initial sound or rhyme) and phoneme awareness (e.g., segmenting or blending phonemes). In this section, both will be discussed.



Figure 2. Oddity task featuring rhymes (top row) and initial sounds (bottom row). Used with permission from Microsoft.

A scientifically based study by Bradley and Bryant (1983) featured an activity that teaches phonological awareness and remains popular today. The activity is sorting or categorizing pictures by either rhyme or initial sound (Bradley & Bryant, 1983). As shown in Figure 2, sets of cards are shown to children that feature pictures of words that rhyme or have the same initial sound. Typically one picture does not match the others in the group, and the students must decide which the “odd” one is. For instance, pictures of a fan, can, man, and pig are identified to be sure the students know what they are. The teacher slowly pronounces each word to make sure the students clearly hear the sounds and has them point to the word that does not rhyme (match the others). This is often referred to as an “oddity task,” and it can also be done with pictures featuring the same initial sound as in key, clock, cat, and scissors (see Blachman, Ball, Black, & Tangel, 2000 for reproducible examples).

Evidence-based activities to promote phoneme awareness typically have students segment spoken words into phonemes or have them blend phonemes together to create words. In fact, the NRP (2000) identified segmenting and blending activities as the most effective when teaching phoneme



Figure 3. Sample of an Elkonin Box featuring the word “fan.” The picture of the word eases the memory load for students as they concentrate on segmenting the individual sounds. Used with permission from Microsoft.

awareness. This makes sense, considering that segmenting and blending are the very acts performed when spelling (segmenting a word into its individual sounds) and reading (blending letter sounds together to create a word). The NRP noted that if segmenting and blending activities eventually incorporate the use of letters, thereby allowing students to make the connection between sounds in spoken words and their corresponding letters, there is even greater benefit to reading and spelling. Making connections between sounds and their corresponding letters is the beginning of phonics instruction, which will be described in more detail below.

An activity that incorporates both segmenting and blending was first developed by a Russian psychologist named Elkonin (1963), and thus, it is often referred to as “Elkonin Boxes.” Children are shown a picture representing a three- or four-phoneme picture (such as “fan” or “lamp”) and told to move a chip for each phoneme into a series of boxes below the picture. For example, if the word is “fan,” they would say /ffff/ while moving a chip into the first box, then say /aaaa/ while moving a chip into the second box, and so on. Both Elkonin boxes (see Figure 3) and a similar activity called “Say It and Move It” are used in the published phonological awareness training manual, *Road to the Code* by Blachman et al. (2000). In each activity children must listen to a word and move a corresponding chip to indicate the segmented sounds they hear, and they must also blend the sounds together to say the entire word.

Decoding

Another critical component for word recognition is the ability to decode words. When teaching children to accurately decode words, they must understand the alphabetic principle and know letter-sound correspondences. When students make the connection that letters signify the sounds that we say, they are said to understand the purpose of the alphabetic code, or the “alphabetic principle.” Letter-sound correspondences are known when students can provide the correct sound for letters and letter combinations. Students can then be taught to decode, which means to blend the letter sounds together to read words. Decoding is a deliberate act in which readers must “consciously and deliberately apply their knowledge of the mapping system to produce a plausible pronunciation of a word they do not instantly recognize” (Beck & Juel, 1995, p. 9). Once a word is accurately decoded a few times, it is likely to become recognized *without* conscious deliberation, leading to efficient word recognition.

The instructional practices teachers use to teach students how letters (e.g., i, r, x) and letter clusters (e.g., sh, oa, igh) correspond to the sounds of speech in English is called phonics (not to be confused with phoneme awareness). For example, a teacher may provide a phonics lesson on how “p” and “h” combine to make /f/ in “phone,” and “graph.” After all, the alphabet is a code that symbolizes speech sounds, and once students are taught which sound(s) each of the symbols (letters) represents, they can successfully decode written words, or “crack the code.”

Why decoding is important

Similar to phonological awareness, neither understanding the alphabetic principle nor knowledge of letter-sound correspondences come naturally. Some children are able to gain insights about the connections between speech and print on their own just from exposure and rich literacy experiences, while many others require instruction. Such instruction results in dramatic improvement in word recognition (Boyer & Ehri, 2011). Students who understand the alphabetic principle and have been taught letter-sound correspondences, through the use of phonological awareness and letter-sound instruction, are well-prepared to begin decoding simple words such as “cat” and “big” accurately and independently. These students will have high initial accuracy in decoding, which in itself is important since it increases the likelihood that children will willingly engage in reading, and as a result, word recognition will progress. Also, providing students effective instruction in letter-sound correspondences and how to use those correspondences to decode is important because the resulting benefits to word recognition lead to benefits in reading comprehension (Brady, 2011).

Decoding instruction

Teaching children letter-sound correspondences and how to decode may seem remarkably simple and straightforward. Yet teaching them well enough and early enough so that children can begin to read and comprehend books independently is influenced by the kind of instruction that is provided. There are many programs and methods available for teaching students to decode, but extensive evidence exists that instruction that is both systematic and explicit is more effective than instruction that is not (Brady, 2011; NRP, 2000).

As mentioned previously, systematic instruction features a logical sequence of letters and letter combinations beginning with those that are the most common and useful, and ending with those that are less so. For example, knowing the letter “s” is more useful in reading and spelling than knowing “j” because it appears in more words. Explicit instruction is direct; the teacher is straightforward in pointing out the connections between letters and sounds and how to use them to decode words and does not leave it to the students to figure out the connections on their own from texts. The notable findings of the NRP (2000) regarding systematic and explicit phonics instruction include that its influence on reading is most substantial when it is introduced in kindergarten and first grade, it is effective in both preventing and remediating reading difficulties, it is effective

in improving both the ability to decode words as well as reading comprehension in younger children, and it is helpful to children from all socioeconomic levels. It is worth noting here that effective phonics instruction in the early grades is important so that difficulties with decoding do not persist for students in later grades. When this happens, it is often noticeable when students in middle school or high school struggle to decode unfamiliar, multisyllabic words.

When providing instruction in letter-sound correspondences, we should avoid presenting them in alphabetical order. Instead, it is more effective to begin with high utility letters such as “a, m, t, i, s, d, r, f, o, g, l” so that students can begin to decode dozens of words featuring these common letters (e.g., mat, fit, rag, lot). Another reason to avoid teaching letter-sound correspondences in alphabetical order is to prevent letter-sound confusion. Letter confusion occurs in similarly shaped letters (e.g., b/d, p/q, g/p) because in day-to-day life, changing the direction or orientation of an object such as a purse or a vacuum does not change its identity—it remains a purse or a vacuum. Some children do not understand that for certain letters, their position in space can change their identity. It may take a while for children to understand that changing the direction of letter b will make it into letter d, and that these symbols are not only called different things but also have different sounds. Until students gain experience with print—both reading and writing—confusions are typical and are not due to “seeing letters backward.” Nor are confusions a “sign” of dyslexia, which is a type of reading problem that causes difficulty with reading and spelling words (International Dyslexia Association, 2015). Students with dyslexia may reverse letters more often when they read or spell because they have fewer experiences with print—not because they see letters backward. To reduce the likelihood of confusion, teach the /d/ sound for “d” to the point that the students know it consistently, before introducing letter “b.”

To introduce the alphabetic principle, the Elkonin Boxes or “Say It and Move It” activities described above can be adapted to include letters on some of the chips. For example, the letter “n” can be printed on a chip and when students are directed to segment the words “nut,” “man,” or “snap,” they can move the “n” chip to represent which sound (e.g., the first, second, or last) is /n/. As letter-sound correspondences are taught, children should begin to decode by blending them together to form real words (Blachman & Tangel, 2008).

For many students, blending letter sounds together is difficult. Some may experience letter-by-letter distortion when sounding out words one letter at a time. For example, they may read “mat” as *muh-a-tuh*, adding the “uh” sound to the end of consonant sounds. To prevent this, letter sounds should be taught in such a way to make sure the student does not add the “uh” sound (e.g., “m” should be learned as /mmmm/ not /muh/, “r” should be learned as /rrrr/ not /ruh/). To teach students how to blend letter sounds together to read words, it is helpful to model (see Blachman & Murray, 2012). Begin with two letter words such as “at.” Write the two letters of the word separated by a long line: a_____t. Point to the “a” and demonstrate stretching out the short /a/ sound—/aaaa/ as you move your finger to the “t” to smoothly connect the /a/ to the /t/. Repeat this a few times, decreasing the length of the line/time between the two sounds until you pronounce it together: /at/. Gradually move on to three letter words such as “sad” by teaching how to blend the initial consonant with the vowel sound (/sa/) then adding the final consonant. It is helpful at first to use continuous sounds in the initial position (e.g., /s/, /m/, /l/) because they can be stretched and held longer than a “stop consonant” (e.g., /b/, /t/, /g/).

An excellent activity featured in many scientifically-based research studies that teaches students to decode a word thoroughly and accurately by paying attention to all of the sounds in words rather than guessing based on the initial sounds is word building using a pocket chart with letter cards (see examples in Blachman & Tangel). Have students begin by building a word such as “pan” using letter cards *p*, *a*, and *n*. (These can be made using index cards cut into four 3” x 1.25” sections. It is helpful to draw attention to the vowels by making them red as they are often difficult

to remember and easily confused). Next, have them change just one sound in “pan” to make a new word: “pat.” The sequence of words may continue with just one letter changing at a time: *pan—pat—rat—sat—sit—sip—tip—tap—rap*. The student will begin to understand that they must listen carefully to which sound has changed (which helps their phoneme awareness) and that all sounds in a word are important. As new phonics elements are taught, the letter sequences change accordingly. For example, a sequence featuring consonant blends and silent-e may look like this: *slim—slime—slide—glide—glade—blade—blame—shame—sham*. Many decoding programs that feature strategies based on scientifically-based research include word building and provide samples ranging from easy, beginning sequences to those that are more advanced (Beck & Beck, 2013; Blachman & Tangel, 2008).

A final important point to mention with regard to decoding is that teachers must consider what makes words (or texts) decodable in order to allow for adequate practice of new decoding skills. When letters in a word conform to common letter-sound correspondences, the word is decodable because it can be sounded out, as opposed to words containing “rule breaker” letters and sounds that are in words like “colonel” and “of.” The letter-sound correspondences and phonics elements *that have been learned* must be considered. For example, even though the letters in the word “shake” conform to common pronunciations, if a student has not yet learned the sound that “sh” makes, or the phonics rule for a long vowel when there is a silent “e,” this particular word is not decodable for that child. Teachers should refrain from giving children texts featuring “ship” or “shut” to practice decoding skills until they have been taught the sound of /sh/. Children who have only been taught the sounds of /s/ and /h/ may decode “shut” /s/ /h/ /u/ /t/, which would not lead to high initial accuracy and may lead to confusion.

Sight Word Recognition

The third critical component for successful word recognition is sight word recognition. A small percentage of words cannot be identified by deliberately sounding them out, yet they appear frequently in print. They are “exceptions” because some of their letters do not follow common letter-sound correspondences. Examples of such words are “once,” “put,” and “does.” (Notice that in the word “put,” however, that only the vowel makes an exception sound, unlike the sound it would make in similar words such as “gut,” “rut,” or “but.”) As a result of the irregularities, exception words must be memorized; sounding them out will not work.

Since these exception words must often be memorized as a visual unit (i.e., by sight), they are frequently called “sight words,” and this leads to confusion among teachers. This is because words that occur frequently in print, even those that *are* decodable (e.g., “in,” “will,” and “can”), are *also* often called “sight words.” Of course it is important for these decodable, highly frequent words to be learned early (preferably by attending to their sounds rather than just by memorization), right along with the others that are not decodable because they appear so frequently in the texts that will be read. For the purposes of this chapter, sight words are familiar, high frequency words that must be memorized because they have irregular spellings and cannot be perfectly decoded.

Why sight word recognition is important

One third of beginning readers’ texts are mostly comprised of familiar, high frequency words such as “the” and “of,” and almost half of the words in print are comprised of the 100 most common words (Fry, Kress, & Fountoukidis, 2000). It is no wonder that these words need to be learned to the point of automaticity so that smooth, fluent word recognition and reading can take place.

Interestingly, skilled readers who decode well tend to become skilled sight word “recognizers,” meaning that they learn irregular sight words more readily than those who decode with difficulty (Gough & Walsh, 1991). This reason is because as they begin learning to read, they are taught to be aware of phonemes, they learn letter-sound correspondences, and they put it all together to begin

decoding while practicing reading books. While reading a lot of books, they are repeatedly exposed to irregularly spelled, highly frequent sight words, and as a result of this repetition, they learn sight words to automaticity. Therefore, irregularly spelled sight words can be learned from wide, independent reading of books. However, children who struggle learning to decode do not spend a lot of time practicing reading books, and therefore, do not encounter irregularly spelled sight words as often. These students will need more deliberate instruction and additional practice opportunities.

Sight word recognition instruction

Teachers should notice that the majority of letters in many irregularly spelled words do in fact follow regular sound-symbol pronunciations (e.g., in the word “from” only the “o” is irregular), and as a result attending to the letters and sounds can often lead to correct pronunciation. That is why it is still helpful to teach students to notice all letters in words to anchor them in memory, rather than to encourage “guess reading” or “looking at the first letter,” which are both highly unreliable strategies as anyone who has worked with young readers will attest. Interestingly, Tunmer and Chapman (2002) discovered that beginning readers who read unknown words by “sounding them out” outperformed children who employed strategies such as guessing, looking at the pictures, rereading the sentence on measures of word reading and reading comprehension, at the end of their first year in school and at the middle of their third year in school.

Other than developing sight word recognition from wide, independent reading of books or from exposure on classroom word walls, instruction in learning sight words is similar to instruction used to learn letter-sound correspondences. Sources of irregularly spelled sight words can vary. For instance, they can be preselected from the text that will be used for that day’s reading instruction. Lists of irregularly spelled sight words can be found in reading programs or on the Internet (search for Fry lists or Dolch lists). When using such lists, determine which words are irregularly spelled because they will also feature highly frequent words that can be decoded, such as “up,” and “got.” These do not necessarily need deliberate instructional time because the students will be able to read them using their knowledge of letters and sounds.

Regardless of the source, sight words can be practiced using flash cards or word lists, making sure to review those that have been previously taught to solidify deep learning. Gradual introduction of new words into the card piles or lists should include introduction such as pointing out features that may help learning and memorization (e.g., “where” and “there” both have a tall letter “h” which can be thought of as an arrow or road sign pointing to where or there). Sets of words that share patterns can be taught together (e.g., “would,” “could,” and “should”). Games such as Go Fish, Bingo, or Concentration featuring cards with these words can build repetition and exposure, and using peer-based learning, students can do speed drills with one another and record scores.

Any activity requiring the students to spell the words aloud is also helpful. I invented an activity that I call “Can You Match It?” in which peers work together to practice a handful of sight words. An envelope or flap is taped across the top of a small dry erase board. One student chooses a card, tells the partner what the word is, and then places the card inside the envelope or flap so that it is not visible. The student with the dry erase board writes the word on the section of board that is not covered by the envelope, then opens the envelope to see if their spelling matches the word on the card. The ultimate goal in all of these activities is to provide a lot of repetition and practice so that highly frequent, irregularly spelled sight words become words students can recognize with just a glance.

Word Recognition Summary

As seen in the above section, in order for students to achieve automatic and effortless word recognition, three important underlying elements—phonological awareness, letter-sound correspondences for decoding, and sight recognition of irregularly spelled familiar words—must be taught to the

point that they too are automatic. Word recognition, the act of seeing a word and recognizing its pronunciation without conscious effort, is one of the two critical components in the Simple View of Reading that must be achieved to enable successful reading comprehension. The other component is language comprehension, which will be discussed in Chapter 4. Both interact to form the skilled process that is reading comprehension. Because they are so crucial to reading, reading comprehension is likened to a two-lock box, with both “key” components needed to open it (Davis, 2006).

The two essential components in the Simple View of Reading, automatic word recognition and strategic language comprehension, contribute to the ultimate goal of teaching reading: skilled reading comprehension. According to Garnett (2011), fluent execution of the underlying elements as discussed in this chapter involves “teaching...accompanied by supported and properly framed interactive practice” (p. 311). When word recognition becomes effortless and automatic, conscious effort is no longer needed to read the words, and instead it can be devoted to comprehension of the text. Accuracy and effortlessness, or fluency, in reading words serves to clear the way for successful reading comprehension.

It is easy to see how success in the three elements that lead to automatic word recognition are prerequisite to reading comprehension. Learning to decode and to automatically read irregularly spelled sight words can prevent the development of reading problems. Students who are successful in developing effortless word recognition have an easier time reading, and this serves as a motivator to young readers, who then proceed to read a lot. Students who struggle with word recognition find reading laborious, and this serves as a barrier to young readers, who then may be offered fewer opportunities to read connected text or avoid reading as much as possible because it is difficult. Stanovich (1986) calls this disparity the “Matthew Effects” of reading, where the rich get richer—good readers read more and become even better readers and poor readers lose out. Stanovich (1986) also points out an astonishing quote from Nagy and Anderson (1984, p. 328): “the least motivated children in the middle grades might read 100,000 words a year while the average children at this level might read 1,000,000. The figure for the voracious middle grade reader might be 10,000,000 or even as high as 50,000,000.” Imagine the differences in word and world knowledge that result from reading 100,000 words a year versus millions! As teachers, it is worthwhile to keep these numbers in mind to remind us of the importance of employing evidence-based instructional practices to ensure that all students learn phoneme awareness, decoding, and sight word recognition—the elements necessary for learning how to succeed in word recognition.

Summary

In order for students to comprehend text while reading, it is vital that they be able to read the words on the page. Teachers who are aware of the importance of the essential, fundamental elements which lead to successful word recognition—phonological awareness, decoding, and sight recognition of irregular words—are apt to make sure to teach their students each of these so that their word reading becomes automatic, accurate, and effortless. Today’s teachers are fortunate to have available to them a well-established bank of research and instructional activities that they can access in order to facilitate word recognition in their classrooms.

The Simple View of Reading’s two essential components, automatic word recognition and strategic language comprehension, combine to allow for skilled reading comprehension. Students who can both recognize the words on the page and understand the language of the words and sentences are much more likely to enjoy the resulting advantage of comprehending the meaning of the texts that they read.

Questions and Activities

1. List the two main components of the simple view of reading, and explain their importance in developing reading comprehension.
2. Explain the underlying elements of word recognition. How does each contribute to successful reading comprehension?
3. Discuss instructional activities that are helpful for teaching phonological awareness, decoding, and sight recognition of irregularly spelled, highly frequent words.
4. View the following video showing a student named Nathan who has difficulty with word recognition: <https://www.youtube.com/watch?v=lpX7yoBUnKk> (Rsogren, 2008). Which of the underlying elements of word recognition (e.g., phonological awareness, letter-sound correspondences, decoding) do you believe may be at the root of this student's difficulties? How might you develop a new instructional plan to address these difficulties?

References

- Adams, M. J., Foorman, B. R., Lundberg, I., & Beeler, T. (1998). The elusive phoneme: Why phonemic awareness is so important and how to help children develop it. *American Educator*, 22, 18-29. Retrieved from <http://literacyconnects.org/img/2013/03/the-elusive-phoneme.pdf>
- Beck, I. L., & Beck, M. E. (2013). *Making sense of phonics: The hows and whys* (2nd ed.). New York, NY: Guilford Press.
- Beck, I. L., & Juel, C. (1995). The role of decoding in learning to read. *American Educator*, 19, 8-25. Retrieved from http://www.scholastic.com/Dodea/Module_2/resources/dodea_m2_pa_roledecod.pdf
- Blachman, B. A., Ball, E. W., Black, R., & Tangel, D. M. (2000). *Road to the code: A phonological awareness program for young children*. Baltimore, MD: Paul H. Brookes Publishing Co.
- Blachman, B. A., & Murray, M. S. (2012). *Teaching tutorial: Decoding instruction*. Charlottesville, VA: Division for Learning Disabilities. Retrieved from <http://teachingld.org/tutorials>
- Blachman, B. A., & Tangel, D. M. (2008). *Road to reading: A program for preventing and remediating reading difficulties*. Baltimore: Brookes Publishing.
- Boyer, N., & Ehri, L. (2011). Contribution of phonemic segmentation instruction with letters and articulation pictures to word reading and spelling in beginners. *Scientific Studies of Reading*, 15, 440-470. doi:10.1080/10888438.2010.520778
- Bradley, L., & Bryant, P. E. (1983). Categorizing sounds and learning to read: A causal connection. *Nature*, 303, 419-421. doi:10.1038/301419a0
- Brady, S. (2011). Efficacy of phonics teaching for reading outcomes: Indicators from post-NRP research. In S. A. Brady, D. Braze, & C. A. Fowler (Eds.), *Explaining individual differences in reading: Theory and evidence* (pp. 69-96). New York, NY: Psychology Press.
- Byrne, J. P. (2012). *Encyclopedia of the Black Death*. Santa Barbara, CA: ABC-CLIO.
- Davis, M. (2006). *Reading instruction: The two keys*. Charlottesville, VA: Core Knowledge Foundation.
- Dehaene, S. (2009). *Reading in the brain*. New York, NY: Penguin Books.
- Elkonin, D. B. (1963). The psychology of mastering the elements of reading. In B. Simon & J. Simon (Eds.), *Educational psychology in the U.S.S.R.* (pp. 165-179). London, England: Routledge & Kegan Paul.

- Fry, E., Kress, J., & Fountoukidis, D. (2000). *The reading teacher's book of lists* (4th ed.). Paramus, NJ: Prentice-Hall.
- Garnett, K. (2011). Fluency in learning to read: Conceptions, misconceptions, learning disabilities, and instructional moves. In J. R. Birsh (Ed.), *Multisensory teaching of basic language skills* (p. 293-320). Baltimore, MD: Brookes Publishing.
- Goodman, K. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*, 6, 126-135. doi:10.1080/19388076709556976
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7, 6-10. doi:10.1177/074193258600700104
- Gough, P. B., & Walsh, M. (1991). Chinese, Phoenicians, and the orthographic cipher of English. In S. Brady & D. Shankweiler (Eds.), *Phonological processes in literacy* (pp. 199-209). Hillsdale, NJ: Erlbaum.
- International Dyslexia Association. (2015). *Definition of dyslexia*. Retrieved from <http://eida.org/definition-of-dyslexia/>
- International Reading Association. (1998). *Phonemic awareness and the teaching of reading: A position statement from the board of directors of the International Reading Association*. Retrieved from http://www.reading.org/Libraries/position-statements-and-resolutions/ps1025_phonemic.pdf
- Nagy, W., & Anderson, R. C. (1984). How many words are there in printed school English? *Reading Research Quarterly*, 19, 304-330. doi:10.2307/747823
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups*. (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf>
- Rayner, K., Foorman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2001). How psychological science informs the teaching of reading. *Psychological Science in the Public Interest*, 2, 31-74.
- Scarborough, H. S. (2002). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 97-110). New York, NY: Guilford Press.
- Snow, C. E. (Chair). (2002). *Reading for understanding: Toward an R & D program in reading comprehension*. Santa Monica, CA: Rand. Retrieved from http://www.prgs.edu/content/dam/rand/pubs/monograph_reports/2005/MR1465.pdf
- Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Rsogren, N. (2008, June 13). Misunderstood minds chapter 2 [Video file]. Available from <https://www.youtube.com/watch?v=lpX7yoBUnKk>
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360-407. doi:10.1598/RRQ.21.4.1
- Tunmer, W. E., & Chapman, J. W. (2002). The relation of beginning readers' reported word identification strategies to reading achievement, reading-related skills, and academic self-perceptions. *Reading and Writing: An Interdisciplinary Journal*, 15, 341-358. doi:10.1023/A:1015219229515
- Worsley, L. (2011). *If walls could talk: An intimate history of the home*. New York, NY: Bloomsbury.

Endnotes

- 1: For detailed information on scientifically-based research in education, see Chapter 2 by Munger in this volume. [Return](#)

4. Language Comprehension Ability: One of Two Essential Components of Reading Comprehension

Maria S. Murray

Abstract

After a brief commentary on the overall importance of knowledge to language comprehension ability, learning, and memory, this chapter then goes on to describe in more detail the elements that contribute to language comprehension. Language comprehension is one of the two essential components for learning to read in the Simple View of Reading. The other is word recognition, which was covered in Chapter 3. Similar to the previous chapter that emphasized word recognition, this chapter presents the skills, elements, and components of language comprehension using the framework of the Simple View of Reading. The Simple View is a representative model explaining that during reading both word recognition and language comprehension coordinate to produce skillful reading comprehension, and it also portrays the many elements that combine to build each component. Each element that ultimately contributes to strategic language comprehension is described, and an explanation of its importance along with suggested instructional activities is provided.

Learning Objectives

After reading this chapter, readers will be able to

1. discuss the importance of knowledge for language comprehension, learning, and memory;
2. explain the underlying elements of language comprehension;
3. identify instructional activities to provide and activate background knowledge, teach vocabulary, and teach language structures;
4. discuss how the underlying elements of language comprehension contribute to successful reading comprehension.

Introduction

As noted in the previous chapter on word recognition's contribution to reading comprehension, the Simple View of Reading (Gough & Tunmer, 1986) is a research-supported model of the reading process. It portrays skillful reading comprehension as a combination of two separate but equally important components—word recognition skills and language comprehension ability. In other words, to unlock comprehension of printed text (as opposed to other modes such as visual or audio that would not require a person to aim for reading comprehension), two keys are required: the ability to read the words on the page and the ability to understand the meaning of the words (Davis, 2006). The previous chapter (Chapter 3) discussed the importance of improving word recognition and methods for doing so. This chapter will cover the other essential component of successful read-

ing comprehension—language comprehension. As you will see, the elements required for language comprehension are all related to gaining meaning from what is being read.

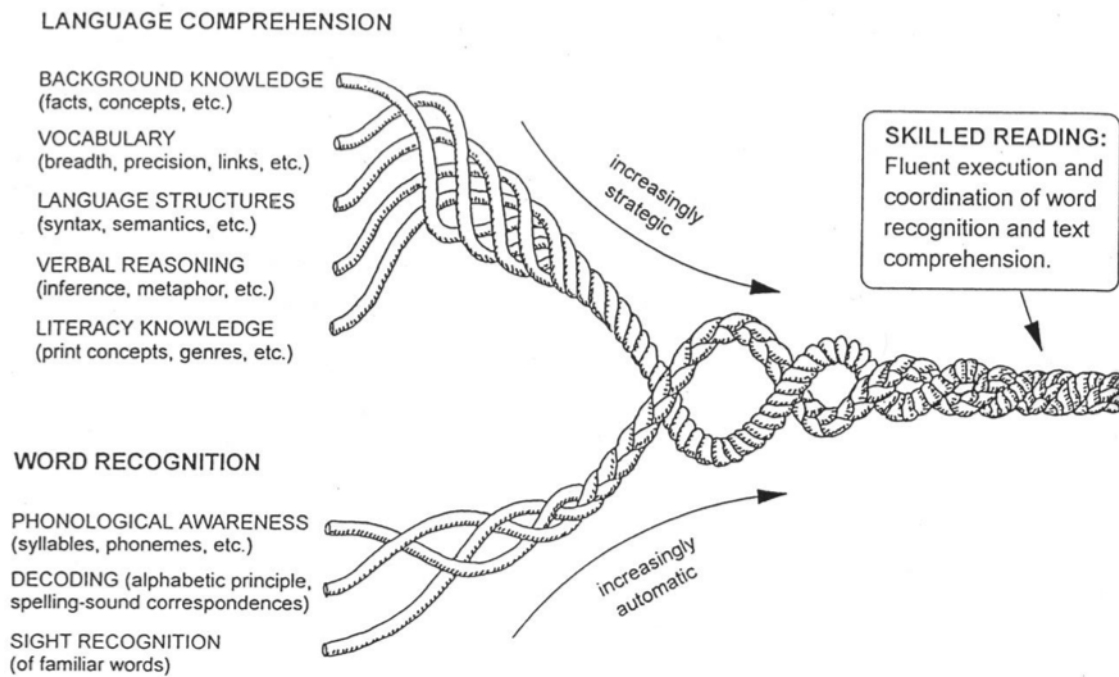


Figure 1. Strands of early literacy development. Reprinted from *Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice*, by H. S. Scarborough, in S. B. Newman & D. K. Dickinson (Eds.), 2002, *Handbook of early literacy research*, p. 98, Copyright 2002, New York, NY: Guilford Press. Reprinted with permission.

The two essential components of the Simple View of Reading are represented by an illustration created by Scarborough (2002). In her illustration, seen in Figure 1, the two necessary braids that contribute to reading comprehension are themselves comprised of underlying skills and strands. Because the Simple View of Reading represents the progression toward proficient reading comprehension as requiring two components, it is termed “simple.” In actuality, each of the components is complex due to its underlying elements. In the case of language comprehension discussed in this chapter, students need to steadily accumulate a fundamental base of background knowledge, vocabulary, verbal reasoning, and literacy knowledge (see below for definitions and explanations of each), and the ability to strategically apply these elements during reading to comprehend texts. To apply strategically means that during the reading of text, readers must continually monitor how well they comprehend its meaning, and bring forth any knowledge they have about the topic, words, sayings, and more. This process is called “metacognition,” or thinking about thinking. After a brief commentary about language comprehension below, the importance of overall knowledge for three elements that lead to the strategic, metacognitive application of the skills and elements in the service of language comprehension will be presented, and instructional methods for each will be provided.

Language Comprehension and Its Connections to Knowledge

Davis (2006) wrote that “even the best phonics-based skills program will not transform a child into a strong reader if the child has limited knowledge of the language, impoverished vocabulary, and little knowledge of key subjects” (p. 15). Language comprehension consists of three elements that must be taught so that students apply them strategically (as opposed to automatically) during reading. As

students interpret the meaning of texts, they must strategically apply their background knowledge, their knowledge of the vocabulary, and their understanding of the language structures that exist between words and within sentences.

First consider how reading comprehension is typically developed. Remember that in this textbook (see Chapter 1), reading comprehension includes “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow, 2002, xiii), as well as the “capacities, abilities, knowledge, and experiences” one brings to the reading situation (p. 11). In line with the first part of this definition, it is expected that once children have been taught sounds and letters, how to blend them together to decode so that they read text fluently, along with lessons in vocabulary, they will be on the way to successful reading comprehension. Reading instruction in schools focuses so heavily on developing reading comprehension because this ability is the ultimate goal of reading.

A surface skim through the teachers manuals from published reading programs will reveal that a multitude of comprehension skills and their corresponding strategies are often taught at each grade level (e.g., finding main idea, summarizing, using graphic organizers), but ultimately these skills and strategies do not necessarily transition students to successfully comprehending texts. Reading comprehension ability is complex and multifaceted; it is comprised of understanding a text’s vocabulary, knowledge of the particular topic, and comprehension of its language structures (see Cain & Oakhill, 2007). Recall from Chapter 1 that language comprehension includes the interaction among someone’s background knowledge, vocabulary, language structures like grammar, verbal reasoning abilities, and literary knowledge (e.g., genres). Language comprehension is a more general term than listening comprehension, which is the ability to understand and make sense of spoken language.

One of the many aspects of reading comprehension that is often overlooked during instruction is students’ language comprehension. For example, a student who has general difficulty with reading comprehension, may, in actuality, comprehend a text about sharks or reefs quite well if his/her parents are marine biologists because he or she has accumulated experiences with ocean-related “language”—its words, phrases, and facts. This same student may not comprehend the next text about ham radio operation or the Appalachian Trail. Successful reading comprehension, then, often depends on the language of a text because the more familiarity and knowledge students have with its language, the stronger comprehension will be. Students from disadvantaged backgrounds often struggle with reading comprehension, despite being able to decode accurately and read fluently. They are often believed to have poor reading comprehension ability when in actuality the snag is a lack of language comprehension stemming from less overall knowledge which in turn stems from fewer experiences aligning with the language encountered in school and school texts. Reading comprehension strategy instruction, which involves teaching children how to comprehend or remember written text using deliberate mental actions, entails instruction in questioning, visualization, and summarizing, for example. However, teaching children how to apply such strategies during reading simply cannot replace a lack of knowledge.

Not surprisingly, in the earliest grades, an important facilitator of reading comprehension is automatic word recognition (see Chapter 3), since comprehension of a text cannot take place if its words cannot be read or recognized. However, once students become more competent at word recognition, the dominant factor driving reading comprehension transforms to become language comprehension (Foorman, Francis, Shaywitz, Shaywitz, & Fletcher, 1997). The reason for this boils down to one word—knowledge. Once students can read the words, they extract meaning from texts using their overall knowledge and experiences (background knowledge), their knowledge of words (vocabulary), and their knowledge of how words go together to create meaning (language comprehension). This accumulation of knowledge can last a lifetime and really never be considered “fin-

ished.” In fact, knowledge is so important to consider, that a brief commentary on its contribution to reading comprehension is next, before going on to discuss the three elements in Scarborough’s (2002) braid that lead to language comprehension, and ultimately reading comprehension.

Subtle differences exist between the terms “knowledge” and “background knowledge.” In this chapter, “knowledge” is broadly defined as the total accumulation of facts and information a person has gained from previous experiences (it is also called general knowledge). Knowledge is composed of concepts, ideas and factual information, which eventually come together to contribute to understanding in various situations. One does need facts and concepts and ideas to perform a procedure (e.g., putting historical events on a timeline, editing a paper for mechanical errors, reading a map), but they are even more vital when partaking in situations or conditions that require synthesizing a lot of information (e.g., write a comprehensive essay on a topic, comprehend an author’s message while reading a book) (Marzano & Kendall, 2007). “Background knowledge,” on the other hand, is a term used in education for a specific subset of knowledge needed to comprehend a particular situation, lesson, or text (it is also called “prior knowledge”). When reading a text about dog training, readers are going to use their background (prior) knowledge of dog behavior, vocabulary related to dogs, aspects of training, and so on, to comprehend text. They will not need to apply any of their knowledge of outer space, photosynthesis, or baking (any of their general, overall knowledge) in this particular instance. It is not possible for educators to teach the required background knowledge for every text that students will encounter as they progress through their school years. They can, however, provide the next best thing—a wide base of general knowledge that can be drawn upon and applied as background knowledge to problem solve and create meaning.

General knowledge comes from years of exposure to books, newspapers, knowledge-rich school curricula, television programs, experiences, and conversations. Its value cannot be understated. Willingham (2006) summarizes the findings in cognitive science regarding the significance of knowledge in education this way:

Those with a rich base of factual knowledge find it easier to learn more—the rich get richer. In addition, factual knowledge enhances cognitive processes like problem solving and reasoning. The richer the knowledge base, the more smoothly and effectively these cognitive processes—the very ones that teachers target—operate. So, the more knowledge students accumulate, the smarter they become. (p. 30)

Both the Council of Chief State School Officers (CCSSO, 2013) and the National Research Council’s Committee on Defining Deeper Learning and 21st Century Skills (NRC; 2012) call for an increase in rigorous content knowledge in order for today’s students to achieve college, career, and citizenship readiness. According to the CCSSO (2013), students must also be able to demonstrate “their ability to apply that knowledge through higher-order skills including but not limited to critical thinking and complex problem solving, working collaboratively, communicating effectively, and learning how to learn” (p. 6).

Difficulties comprehending complex texts encountered in college and careers have been attributed to a lack of general knowledge. To illustrate this difficulty, Schweizer (2009), a professor who taught freshman composition classes at Duke University, wrote about an eye-opening incident he experienced during his classes. After assigning both his remedial and advanced classes a four-page article on climate change from a popular college-level anthology of essays (see McKibben, 2006), he realized his students’ comprehension of the essay was “flat, anemic, and literal rather than deep, rich, and associative” (p. 53). Upon questioning his students on the general knowledge items within the text—general facts, figures, locations, words, and common expressions—he reached a sobering conclusion. In the remedial class, just one student could identify Gandhi, none knew Ernest Hemingway, and two knew that Job was a character in the Bible. In the more advanced class, four out

of 15 students recognized Gandhi or Hemingway, none knew the word “quixotic,” and few could comprehend certain expressions within the text (e.g., “something is in the offing”) or its allusions (e.g., “the snows of Kilimanjaro are set to become the rocks of Kilimanjaro”). Reflecting on the literacy-related consequences of this lack of word and world knowledge, Schweizer noted that his students were “not only hampered by a lack of factual knowledge, but that this shortcoming translates into problems with diction and literacy as well” (p. 52). Interestingly, to have comprehended this paragraph alone, you need to be familiar with and comprehend the importance and meaning of these words and phrases: *Duke University*, *attributed*, “*eye-opening incident*,” *remedial*, *anthology*, “*sobering conclusion*,” and *allusions*. A lack of language comprehension related to these words will hamper your reading comprehension indeed!

Background Knowledge

One of the three elements necessary for language comprehension is background knowledge. As mentioned above, background knowledge is a particular subset of knowledge (e.g., facts about the world, events, people, sayings and phrases) that is needed to comprehend and learn from a particular situation, lesson, or text. Young readers learn to strategically apply their background knowledge in order to interpret a text’s meaning. As a small example, consider the following sentence: “Initially Richard was upset when police told him they found bugs in his office, but to avoid prosecution he agreed to let them remain until the investigation was completed.” To comprehend this sentence either in isolation or within the context of an entire text, one will need to have learned that “bugs” are spying devices, to understand that people might get upset when they discover they are being spied on, and to infer that Richard has created an arrangement of cooperation with the police. Without background knowledge, the author’s intended meaning may be misconstrued as having to do with insects.

Why background knowledge is important

Knowledge leads to more knowledge, making learning easier (Willingham, 2006). Consider another example in which students read a story about a boy who is angry that he was not selected to play on the football team. The boy insists, “I really didn’t want to play football anyway!” His mother responds, “Sounds like a case of sour grapes to me!” Students familiar with the Aesop’s fable “The Fox and the Grapes” will understand the reference to “sour grapes” in this particular story and in all subsequent texts, and they will be able to interpret the subtle nuances of resentment that comes about after rejection. A student with no exposure to the fable may believe that the boy really did not want to play football and will not understand why the mother is talking about grapes. Meaning will be incomplete. Background knowledge allows readers to strategically infer the author’s meaning with a lot less effort. Drawing inferences from a text is so much easier when a reader is already familiar with what the author is talking about.

Willingham (2006) summarized some of the findings in cognitive science regarding how background knowledge helps students comprehend what they read and *remember* what they have learned. Most obvious, and as seen in the sour grapes example, background knowledge of a text makes it so that fewer instances are necessary of having to stop or reread for clarification. The author’s point is comprehended right away. Less obvious, background knowledge allows readers to arrange sequences of events in texts into connected, meaningful units or sequences that can be more easily analyzed, understood, and remembered. Without background knowledge, words and sentences in a text easily become disjointed, unrelated, random sequences. For instance, imagine a passenger in a small plane who has no background knowledge of mechanics or technical things. This passenger is asked by the pilot to read off the items from preflight checklists. Due to lack of background in technical things, the items seem arbitrary and unrelated. Dozens of unfamiliar words and terms are essentially meaningless (e.g., throttle 2000 RPM, magnetos max drop 175 RPM, press-

to-test annunciator panel, electric fuel pump off, fuel pressure check), and if asked after the flight, it is unlikely that the passenger would be able to remember them. Conversely, if the next traveler possesses background knowledge related to how mechanical things work and is asked to read the same checklists, his or her comprehension and recall would be greater because the items on the list would be familiar and meaningful. It would be understood that some of the items were related to engine speed, while others had to do with the fuel system and they would be retained in memory because this passenger would assign them to meaningful categories and sequences. The background knowledge of the second passenger would not only create better comprehension of the experience, it would also enable greater storage and recall of most of the events. The second passenger would have learned more and would have remembered more.

A similar phenomenon related to how meaningful categories (or “chunks”) are related to memory and learning is the frequently cited experiments of DeGroot (1946/1978) and Chase and Simon (1973). Differences in background knowledge (via the experiences) between master and novice chess players were examined in both studies, as well as how this knowledge influenced their memories. Chess masters who had experienced thousands of chess matches, and thus, had more background knowledge were pitted against novices in a simple experiment. For just a few seconds, chess masters and novices were shown pictures of chessboards in which the pieces were configured in positions from advanced level matches. The pictured pieces were not arranged on the boards randomly; their positions were realistic. After momentarily viewing the pictures, players reconstructed the positions of each piece using a real board. Masters recreated the positions almost perfectly, while the novices placed about half of the pieces successfully. The accuracy of recall was attributed to the masters’ ability to categorize and chunk information, or, in the case of chess, to chunk together multiple, meaningful groups of pieces. The novices could only memorize positions of *single* pieces, whereas the masters memorized positions of *sets* of pieces that made sense to them in terms of familiar play-structures. They had background knowledge of similar set-ups.

A video recreating this experiment with chess grandmaster Patrick Wolff (Simons, 2012) reveals his strategy in recreating the board placements. Wolff states that he noticed where the pieces clustered and that he noted the logical connections between the pieces. He recognized the meaningful chunks. In a book about how practice and effort contribute to talent, Colvin (2008) comments on chess player experiments, noting that, “instead of seeing twenty-five pieces, they may see just five or six groups of pieces” (p. 100). In any realm, meaningful chunks can only be formed by those having the knowledge and background experiences to understand what belongs with what. In the case of chess players, certain pieces defend others in strategically particular positions. For skilled readers, certain letters chunk together within long words, enabling them to be read rapidly and accurately, and certain words and ideas chunk together meaningfully, enabling comprehension of an author’s message. An example of how words and ideas chunk together meaningfully to aid reading comprehension is provided by Meurer (1991), who wrote about reading schemata. Reading schemata are patterns that organize knowledge in our minds while we read. Meurer explained that readers have schema for various concepts, such as when something “breaks.” Along with this understanding, they may possess subcomponents and ideas having to do with “breaks”: items that can be broken, ways that things can cause things to be broken, and what it means for something to be broken, just to name a few. He then provided an example of a sentence: “The karate champion broke the cinder block.” The author of that sentence does not explicitly tell the reader what the champion used to break the cinder block. It is the reader’s schema for “break” and “karate champion” that allows him or her to successfully infer that what broke the cinder block was not a hammer or a chisel, but the karate champion’s hand. Without the ability to automatically chunk together and activate various words and ideas, reading comprehension will suffer.

In any field, setting, or circumstance, new material that has familiarity is more readily learned because it is easier to understand and because it is supported by and connected meaningfully to what is already known. The beauty and value of background knowledge is that it provides the familiarity that is crucial for connections that both create new learning and allow for the new learning to be remembered.

Background knowledge instruction

As educators, we cannot teach the “big umbrella” of background knowledge since it evolves from a multitude of life experiences. However, we can *provide* it or *activate* it, and suggestions for both are described below.

Providing background knowledge

Meaningful contexts from a content-rich curriculum spanning a wide variety of content areas are ideal for providing the background knowledge that will scaffold future learning. Many curricula are deliberately designed to provide an integrated sequence of rich, engaging, multicultural content spanning history, science, music, visual arts, mathematics, language arts, and more. Without such a curriculum, knowledge from each of these areas that is likely to appear in texts in subsequent grades can still be provided. In the earliest grades, before students can read books independently, the content and concepts that build background knowledge are usually developed through teacher read-alouds of a wide variety of texts, such as nursery rhymes, rhyming poems, fairy tales and fables from a variety of cultures, and engaging nonfiction texts, to name a few.

Children’s books and other written sources of information are an authentic and abundant source of knowledge about every imaginable subject (see Chapter 7 for further discussion about children’s literature), suitable for building knowledge at all grade levels (Stanovich & Cunningham, 1993). Children’s books feature rich concepts and a high percentage of unique and sophisticated words (Cunningham & Stanovich, 1998; Hayes & Ahrens, 1988). Reading a number books or stories to students featuring similar themes or domains (e.g., farms, seasons, culturally diverse folklore, Egypt, music, currency, weather) provides a beneficial repetition of words and concepts that build valuable background knowledge. As students hear multiple versions of a similar theme or receive repeated instruction in a particular domain, newly developed background knowledge will lead to better comprehension of the material (Cervetti, Jaynes, & Hiebert, 2009). Davis (2006) recommends twenty to thirty read-alouds per domain (e.g., from a variety of children’s books, chapters, short pieces, poems) for developing background knowledge; just two short read-alouds a day can cover 10 to 15 domains in a school year (see also Hirsch, 2006). Although read-alouds are typically done in the elementary grades, there is likely to be benefit in building background knowledge at the older grades as well.

Activating background knowledge

In addition to providing background knowledge, we can also activate existing background knowledge. Activation of background knowledge that students already possess is frequently a focus of comprehension instruction. Teachers understand the value of activating background knowledge and as a result many tend to apply a series of strategies at the expense of providing knowledge. There is not a lot of research on teaching a multitude of comprehension strategies prior to third grade, primarily because beginning readers in the early grades are learning how to decode fluently. Also, too much of an emphasis on teaching strategies for reading comprehension may not be effective (Stahl, 2004), particularly if the text is easy to understand. For young students, particularly when using complex text, comprehension strategies should still be worked on (see the Institute of Education Sciences’ practice guide (Shanahan et al., 2010) for a summary of recommendations on improving reading comprehension for children in grades K-3), but the decoding constraint may still stand in the way. In later grades, simply applying comprehension strategies such as visualizing

or predicting will not automatically enable students to understand science. If we want students to comprehend science texts, they must know something about science. Students do better if they read and write about things they know about. While isolated facts are certainly important and necessary, they will not suffice to enable meaningful comprehension unless background knowledge is developed within meaningful contexts.

Activating background knowledge is under scrutiny since the introduction of the *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* (CCSS; National Governors Association & Council of Chief State School Officers [NGA & CCSSO], 2010) because students are now expected to extract information from texts by focusing on what the author intended for them to understand, rather than relying too heavily on their prior knowledge, experiences, or opinions to construct meaning. Teachers are encouraged to downplay any lengthy, explicit focus on their students' existing knowledge before reading, and in discussions about the CCSS, some propose that this may serve to equalize the outcomes for children who have varying degrees of knowledge about various topics. However, as Shanahan (2014) explains, avoiding discussion altogether of background knowledge will not serve to allow children to interpret and comprehend texts more equally, because it would be next to impossible for children who do possess background knowledge about a topic to avoid using it to construct meaning while they read. Those without the background knowledge will not have this advantage, and will be wrongly viewed as having poor comprehension, when in fact it is their lack of knowledge that is to blame. Shanahan (2014) provides some practical instructional suggestions for activating background knowledge before and during reading. An abridged and modified list appears below:

1. When introducing texts, avoid lengthy introductions or potentially ineffective pre-reading strategies such as a "picture walks" and tedious contributions of students' prior knowledge that could potentially impair comprehension. A simple statement such as "We're going to read a story about how animals camouflage themselves" may suffice. The goal is to be brief and strategic (e.g., what is the purpose of the text, what will students bring to it, and what information absolutely needs to be provided; note all the other suggestions below for more clarification). Otherwise time spent during pre-reading activities may take time away from the actual reading, become boring or repetitive, and possibly steer children to the wrong focus, ruining the entire experience. See an additional blog post in which Shanahan (2012) speaks specifically about this topic <http://www.shanahanonliteracy.com/2012/02/pre-reading-or-not-on-premature-demise.html>
2. When introducing a topic or genre that students will be reading, avoid revealing information that you will want them to extract from the text(s) on their own.
3. Preteach necessary information students will need if it is not in the text (e.g., a text on climate change may not have been written for young students, so vital references to geography or technology may need explanation).
4. Do not focus on activating background knowledge about topics in the text that are not needed for its comprehension (e.g., a text focusing on how an octopus camouflages itself does not require discussion or instruction about oceans).
5. When using multiple texts to develop background knowledge, introduce them in an order that will support and reinforce those that may come before or after. Initial texts may cover a particular topic in a general manner, followed up by texts that cover the material in the initial texts and delve deeper into the topic.
6. Attend to the differing background knowledge needs of students from diverse cultures by considering information you may need to pre-teach in order for them to comprehend particular texts.

Vocabulary

Having just read about background knowledge, it is probably easy for you to imagine how vocabulary—the knowledge of the meaning of words in a text—adds significantly to the construction of the meaning of texts. Vocabulary knowledge is a prominent predictor of reading comprehension and is depicted as a central thread in the language comprehension component of the Simple View of Reading because of its connections to background knowledge and language structures (Scarborough, 2002).

The development of a child’s vocabulary begins at infancy, when a baby starts hearing speech and babbling. Oral language experiences, such as in-person conversations, dialogue heard on TV, or language heard during the reading of children’s books are primary means for accumulating vocabulary. By the age of two, children usually speak about 200 to 300 words and understand many more, and once in school, they learn approximately 3,000 words per year, and can comprehend many more than they can read (Nagy, 2009). To accomplish this rate of word learning, it is critical to ensure that students are learning new words each day. This is especially true for many students from less advantaged backgrounds, who are exposed to millions fewer words in their first three years of life than students who come from more privileged backgrounds (Hart & Risley, 1995). This disparity results in students from more affluent households knowing thousands more words upon entering school, which benefits their ability to understand, participate in, and profit from the language of instruction that is predominant in U.S. school settings.

Why vocabulary is important

As stated previously, the level of a child’s vocabulary knowledge is a strong predictor of reading comprehension (Duncan et al., 2007). This seems obvious since not knowing the meaning of words in a text makes it quite difficult to comprehend it. As Adams (2010) eloquently points out, “What makes vocabulary valuable and important is not the words themselves so much as the understandings they afford. The reason we need to know the meanings of words is that they point to the knowledge from which we are to construct, interpret, and reflect on the meaning of text” (p. 8).

Vocabulary instruction

Instruction in vocabulary should begin with thinking about the different levels of “knowing” a word. Upon hearing a word, we can say (a) we have never heard of it, (b) that we have heard of it but we do not know it, (c) that we know it, or (d) that we both know it and can use it (Nagy, 2009). The more deeply we know a word, the more likely we will be to understand it when we hear it or read it, and the more likely we will be to use it when we speak or write. Ideally, instruction makes it so that students reach the level of knowing and using words when they converse, write, or read. Vocabulary learning occurs either incidentally (words are learned through exposure and experiences) or intentionally (words are deliberately and directly taught). The majority of words in our vocabularies are learned incidentally, through conversations or independent reading (Adams, 2010). This means that most vocabulary learning will not occur through explicit instructional means but through opportunities available in the child’s environment to encounter and resolve meanings of new words. Children who have learned to read independently are at an advantage in terms of learning words incidentally because they are able to independently encounter new words and infer their meaning while reading.

Incidental vocabulary instruction is enhanced through rich and varied oral language dialogue and discourse experiences, and independent reading. Even though “incidental” learning occurs as a result of some activities that do not involve any deliberate teaching, incidental learning still often involves a level of intentionality on the part of teachers. Teachers should consciously fill their everyday classroom language with rich, unique words so that they can be learned incidentally. A classroom that is rich with words promotes awareness of new vocabulary and a curiosity for learning

new words. Rather than simplifying language for students, conversations should be embedded with sophisticated words: “Jordan, why don’t you *amble* over here and let me *glance* at that,” “Please shut the door; those third graders are causing quite a *commotion*! What a *ruckus*!” and “Oh my, Jake, the lion on your t-shirt has such *sinister* eyes! It *terrifies* me!” A resource for building language rich classrooms to promote oral language, vocabulary, and comprehension is Dodson’s (2011) *50 Nifty Speaking and Listening Activities*. While it is not a scientifically based intervention, it provides a multitude of listening, speaking, reading, and writing activities that adhere to a sequence of language development for students ranging from kindergarten to fifth grade.

Many words, phrases, and sayings require intentional instruction. Vocabulary words that should be intentionally taught are those essential for understanding texts, those that are likely to be encountered across multiple texts, or those that are particularly difficult to understand (Beck, McKeown, & Kucan, 2002). Activities for directly teaching vocabulary include using graphic organizers (for a collection of free graphic organizers visit <https://www.teachervision.com/graphic-organizers/printable/6293.html>), or analyzing words’ semantic features (i.e., listing their attributes—hard/soft, tall/short, exciting/dull).

Text Talk (Beck & McKeown, 2001) is an evidence-based vocabulary (and comprehension) building intervention that can be easily built into daily read-alouds. Teachers pre-read the selected text, choosing three to five vocabulary words that are “Tier 2” words. Tier 2 words are sophisticated, occur frequently in conversation and print, and are used across multiple domains and contexts. Examples of Tier 2 words are *unique*, *convenient*, *remarkable*, and *misery* (See Beck et al., 2002). Tier 1 words are those that are basic and, for speakers of English, do not require instruction in school (e.g., *wall*, *water*, *fun*), and Tier 3 words are low-frequency words that are specific to domains or content areas (e.g., *photosynthesis*, *Constantinople*). During a read-aloud that is done in Text Talk fashion, open-ended comprehension questions are asked. Open-ended questions require a meaningful interactive response rather than a one-word reply. Examples of an open-ended question are “How do you think that made the boy feel?” and “Why did the fox decide to share his food?” To answer each of these questions requires an extended, multiple-word response. Examples of close-ended questions requiring only a single word response include “Is the boy mad?” and “Which food did the fox share?” Interactive extended responses and dialogue promote oral language development and allow the teacher to monitor students’ vocabulary use and comprehension. After the read-aloud or during a second reading of the story, the preselected Tier 2 vocabulary words are defined by the teacher using simple, child-friendly definitions (e.g., “To *coax* someone means to use your words to get them to do something”). The meanings of the words are discussed within the context of the story (e.g., “The mother *coaxed* her daughter to take a bath, meaning she used words to convince her to get into the bathtub”), and the teacher provides examples of the words within other contexts (“When my mother got older, I had to *coax* her to join us on vacation”). Finally, the students are asked to apply their knowledge and use the words in a personal context to ensure that they have the correct understanding of their meanings (“Jared, can you share an example of a time when someone coaxed you to do something?”). Additionally, during the read-aloud, it is beneficial to read the text *before* showing the pictures so that the illustrations do not interfere with attention or comprehension. This procedure is effective in getting students to pay attention to the words being read, and thus, is helpful toward their comprehending the language of the story (Beck & McKeown, 2001). It fosters their ability to comprehend decontextualized language—language that is “outside the here and now” (p. 10)—and leads to comprehending the vocabulary and text without relying on pictures. Teachers typically read children’s books aloud on a daily basis. Modifying read-alouds a bit to include the suggestions here fosters rich Tier 2 vocabulary and language comprehension through open-ended questions and by drawing attention to the vocabulary and meaning in texts.

Language Structures

The final element contributing to language comprehension is language structure—the relationships between the words and sentences in a text. Looking back at the model of skilled reading in Figure 1, it is evident there are many facets to language structures, including knowledge of grammar, being able to make inferences, and having knowledge of literacy concepts, such as what reading strategies to use for different types of texts (e.g., poems versus informational texts). To simplify and streamline these for the purpose of this chapter, they will be categorized as having to do with the major components of language that are interconnected: form, content, and use (see Bloom & Lahey, 1978).

Why language form is important

Language form comprises the rules for how words are structured (see ‘morphology’ described below) as well as the rules for the arrangement of words within sentences and phrases (see ‘syntax’ described below). The act of constructing meaning while reading is complex, so it is not surprising that morphology and syntax also contribute to reading comprehension.

Morphology is the study of morphemes in a language. Not to be confused with phonemes, which are the smallest units of sound in spoken words, morphemes are the smallest units of meaning in words (to remember this, consider that “morphemes” and “meaning” both begin with the letter “m”). Words contain one or more morphemes, or units of meaning. For instance, “locate” is a word that is a freestanding morpheme because it has just one unit of meaning and can stand on its own. By attaching another morpheme, the suffix “-tion,” to create “location,” there are now two units of meaning: “locate” and the action or condition of locating, “tion.” “Tion” is a bound morpheme because its meaning depends on its connection to other words; it cannot stand on its own. A third morpheme, the prefix “dis,” changes the meaning of the word yet again—“dislocation.” In sum, the word “dislocation” is made up of three morphemes, each of which contributes its own meaning. Similarly, “cat” is a freestanding morpheme (a singular feline animal), but adding the bound morpheme—s—signals a change in meaning and the reader now pictures more than one cat.

Another aspect of language form, syntax, is commonly referred to as grammar. It is the combining and ordering of words in sentences and phrases that enables comprehension of a text. For example, in English, when the article “a” or “an” appears in a sentence, it is expected that a noun will follow. Syntax includes sentence construction elements like statements, commands, and combined sentences as well as particular sentence components such as nouns, adjectives, and prepositional phrases. These are important for future teachers to know, because effective use of these will allow students to comprehend text more successfully, and they will also allow students to demonstrate command of the conventions of the language in their writing pieces.

Language form instruction

Typically, rules of morphology and syntax are taught directly. For example, morphology instruction includes root words, prefixes, and suffixes along with derivations of Greek and Latin roots (e.g., “chron” is the Greek root for “time” in chronicle, synchronize, and “cred” is the Latin root for “believe” in creed, incredible, credulous). Morphology charts of root words, prefixes, and suffixes can be compiled over time and displayed on a wall so that students can refer to them while reading or writing. Charts could feature a list of suffixes that indicate people nouns (e.g., -er, -or, -cian, -ist), suffixes that create verbs (e.g., -ize, -ify), or base words that change spelling and pronunciation (e.g., sign/signature/design, deep/depth). Incidental exposure to such morphology elements enhances word awareness (the act of noticing and attending to features of words), vocabulary, and, of course, language comprehension.

Why language content is important

Language content that is comprised of the meaning of the relationships that exist *between* words, phrases, and sentences is known as semantics. Semantics is different from vocabulary because it

extends beyond the individual meaning of words. Note that once again, there is an “m” in this “semantics,” but it is in the middle of the word, which may help you to remember it has to do with the meaning that ties words (and sentences) together. Understanding the semantics of language enables comprehension because it clarifies the content—the network of events and relationships that exists in texts. For example, reading a sentence about a jug breaking and glass being scattered all over the floor might cause confusion, since jugs are typically not thought of as being made of glass.

Language content instruction

Semantics requires knowledge of vocabulary (a word’s meaning, and perhaps its synonyms and antonyms), as well as syntax. Just as important is background knowledge in order to form correct judgments about the context being read. Part of this knowledge includes the meaning of humor, slang, idioms (i.e., combinations of words having a figurative meaning as in “it’s raining cats and dogs” or “he was feeling blue”), metaphors (a comparison of two things as in “she is my sunshine”) and similes (comparisons of two things using “like” or “as” as in “her laughter is like sunshine”). Languages have thousands of common and often subtle semantic attributes that involve analogy, exaggeration, sarcasm, puns, and parables to convey world knowledge. Teachers can explicitly teach these attributes so that they are recognized more readily, explicitly define particular sayings and expressions, and demonstrate examples and nonexamples. For example, a teacher could demonstrate examples and nonexamples of exaggeration (“I have a million papers to grade!” vs. “I have three papers to grade”). As soon as schooling begins, semantic conventions should be taught, such as in the way that “once upon a time” signals the beginning of a fairy tale. Like vocabulary, the majority of semantic knowledge is derived from previous experiences and background knowledge. Teaching students phrases through exposure to discussions, reading, and other venues like television, movies, and online videos does a lot to promote this language comprehension element.

Why language use is important

Language use is termed pragmatics. Pragmatics are the rules of language that lead to appropriate use in assorted settings and contexts. Each setting (e.g., school, home, restaurant, job interview, playground) or context (e.g., greeting, inquiry, negotiation, explanation) has a particular purpose. To communicate appropriately, students must learn patterns of conversation and dialogue that occur in assorted settings. For example, use of language can vary according to a person’s status, so whether talking at home to a parent (a more casual use of language) or talking to a teacher at school, (a more formal use of language), the setting and the status differ, and language use must adapt accordingly. Understanding the nuances of pragmatics contributes to language comprehension, which in turn enables a reader to recognize its uses in written text, leading to more successful reading comprehension.

Language use instruction

The pragmatics of language use in school requires students to comprehend academic language. Students, especially English language learners and students with social difficulties, must comprehend the differences between conversation and academic language. Students’ language use in assorted settings (e.g., playground conversations, discussions with teachers) often requires teachers to provide clarification and elaboration. Students can perform enjoyable skits demonstrating the differences in language use in various situations and teachers can monitor and model language use as students tell stories, describe events, or recount personal experiences.

Summary

To help students develop language comprehension, the underlying meaning-based elements of reading—background knowledge, vocabulary, and language structures—must be taught and monitored. Unlike teaching students to recognize words accurately and automatically so that they

become fluent readers, teaching the elements of language comprehension must be done so that students become increasingly strategic about extracting the meaning from texts they read. This is an incremental, ongoing, developmental process that lasts a lifetime. With each new bit of background knowledge, each new vocabulary word, and each new understanding of language use, students can integrate this knowledge strategically to comprehend text.

The two essential components of the Simple View of Reading, automatic word recognition and strategic language comprehension, contribute to the ultimate goal of teaching reading: skilled reading comprehension. Once students become proficient decoders and can automatically identify words, the role of language comprehension becomes increasingly important as students shift from paying attention to the words to paying attention to meaning.

Teachers must be ever mindful of the presence or absence of background knowledge that students bring to the task. As important as it is for students to monitor their comprehension, it is equally important for teachers to continually monitor each student's background knowledge and comprehension so that they can step in to build and supply what is missing in their understanding. The value of the knowledge that students bring to their reading should never be sacrificed for the sake of comprehension strategy instruction. They must go hand in hand.

Questions and Activities

1. What are the three underlying elements of language comprehension? How does each contribute to successful reading comprehension?
2. Which instructional activities are helpful for providing and activating background knowledge, teaching vocabulary, and promoting language use?
3. Consider a student that you have worked with who has difficulty with reading comprehension. Which of the underlying element(s) of language comprehension (i.e., background knowledge, vocabulary, language use) do you believe may be at the root of this student's difficulties? How might you develop a new instructional plan to address these difficulties?
4. Select an informational text that you might use with students. Identify the facts, phrases, vocabulary or other knowledge items that readers would need in order to comprehend the text. Next, consider discussing which facts, phrases, vocabulary, or other knowledge items would a reader NOT necessarily need in order for comprehension to still occur.

References

- Adams, M. J. (2010). Advancing our students' language and literacy: The challenge of complex texts. *American Educator*, 34, 3-11, 53. Retrieved from <https://www.aft.org/sites/default/files/periodicals/Adams.pdf>
- Beck, I. L., McKeown, M. G. (2001). Text talk: Capturing the benefits of read aloud experiences for young children. *The Reading Teacher*, 55, 10-20. Retrieved from http://teacher.scholastic.com/products/texttalk/pdfs/Capturing_the_benefits.pdf
- Beck, I. L., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York, NY: Guilford Press.
- Bloom, L., & Lahey, M. (1978). *Language development and language disorders*. Boston, MA: Allyn & Bacon.
- Cain, K., & Oakhill, J. V. (Eds.). (2007). *Children's comprehension problems in oral and written language: A cognitive perspective*. New York, NY: Guilford Press.

- Cervetti, G. N., Jaynes, C. A., & Hiebert, E. H. (2009). Increasing opportunities to acquire knowledge through reading. In E. H. Hiebert (Ed.), *Reading more, reading better* (pp. 79-100). New York, NY: Guilford Press.
- Chase, W. G., & H. A. Simon. (1973). Perception in chess. *Cognitive Psychology*, 4, 55-81. doi:10.1016/0010-0285(73)90004-2
- Colvin, G. (2008). *Talent is overrated: What really separates world-class performers from everybody else*. New York, NY: Penguin.
- Council of Chief State School Officers (2013). *Knowledge, skills, and dispositions: The Innovation Lab Network state framework for college, career, and citizenship readiness, and implications for state policy*. Retrieved December 15, 2014, from http://www.ccsso.org/Resources/Publications/ILN_CCR_Framework.html
- Cunningham, A.E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator*, 22(1), 8-15. Retrieved from <https://www.aft.org/sites/default/files/periodicals/cunningham.pdf>
- Davis, M. (2006). *Reading instruction: The two keys*. Charlottesville, VA: Core Knowledge Foundation.
- DeGroot, A. D. (1946/1978). *Thought and choice in chess* (2nd ed.). The Hague: Mouton.
- Duncan, G. J., Claessens, A., Huston, A. C., Pagani, L. S., Engel, M., Sexton, H., et al. (2007). School readiness and later achievement. *Developmental Psychology*, 43, 1428-1446. doi:10.1037/0012-1649.43.6.1428
- Foorman, B. R., Francis, D. J., Shaywitz, S. E., Shaywitz, B. A., & Fletcher, J. M. (1997). The case for early reading intervention. In B. Blachman (Ed.), *Foundations of reading acquisition and dyslexia: Implications for early intervention* (pp. 243-264). Baltimore, MD: Paul Brookes.
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7, 6-10. doi:10.1177/074193258600700104
- Hart, B., & Risley, T. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul Brookes.
- Hayes, D., & Ahrens, M. (1988). Vocabulary simplification for children: A special case of "motherese"? *Journal of Child Language*, 15, 395-410. doi:10.1017/S0305000900012411
- Hirsch, E. D. (2006). Building knowledge: The case for bringing content into the language arts-block and for a knowledge-rich curriculum core for all children. *American Educator*, 30, 8-21, 28-29. Retrieved from <http://www.aft.org/periodical/american-educator/spring-2006/building-knowledge>
- Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing: An Interdisciplinary Journal*, 2, 127-160. Retrieved from http://www.homepage.psy.utexas.edu/HomePage/Class/Psy338K/Gough/Chapter7/simple_view.pdf
- Marzano, R. J., & Kendall, J. S. (2007). *The new taxonomy of educational perspectives* (2nd ed.). Thousand Oaks, CA: Corwin Press.
- McKibben, B. (2006). Worried? Us? In D. McQuade & R. Atwan (Eds.), *The writer's presence: A pool of readings* (pp. 763-768). New York, NY: Bedford.
- Meurer, J. L. (1991). Schemata and reading comprehension. *Ilha do Desterro*, 25/26, 167-184.
- Nagy, W. (2009). Understanding words and word learning: Putting research on vocabulary into-classroom practice. In S. Rosenfield & V. Berninger (Eds.), *Implementing evidence-based academic interventions in school settings* (pp. 479-500). New York, NY: Oxford University Press.
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English language arts & literacy in history/social stud-*

- ies, science, and technical Subjects. Washington, DC: Author. Retrieved from http://www.corestandards.org/wp-content/uploads/ELA_Standards.pdf
- National Research Council. (2012). *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Retrieved December 15, 2014 from <http://www.nap.edu/catalog/13398/education-for-life-and-work-developing-transferable-knowledge-and-skills>
- Pressley, M. (2006). *Reading instruction that works: The case for balanced teaching*. New York, NY: Guilford Press.
- Scarborough, H. S. (2002). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 97-110). New York, NY: Guilford Press.
- Schweizer, B. (2009). Cultural literacy: Is it time to revisit the debate? *Thought and Action*, 25, 51-56. Retrieved from <https://www.nea.org/assets/docs/HE/TA09CulturalLiteracy.pdf>
- Shanahan, T. (2012, February 21). *Special Needs Activities*. Retrieved from <http://www.shanahanonliteracy.com/2012/02/pre-reading-or-not-on-premature-demise.html>
- Shanahan, T. (2014, November 17). *Prior Knowledge Part 2*. Retrieved from <http://www.shanahanonliteracy.com/2014/11/prior-knowledge-part-2.html>
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from whatworks.ed.gov/publications/practiceguides.
- Simons, D. (2012, January 12). *Memory for chess positions* [Video file]. Retrieved from <https://www.youtube.com/watch?v=rWuJqCwfjic>
- Snow, C. E. (Chair), (2002). *Reading for understanding: Toward an R & D program in reading comprehension*. Santa Monica, CA: Rand. Retrieved from http://www.prgs.edu/content/dam/rand/pubs/monograph_reports/2005/MR1465.pdf
- Stahl, K. (2004). Proof, practice, and promise: Comprehension strategy instruction in the primary-grades. *The Reading Teacher*, 57, 598-609. Retrieved from <https://steinhardt.nyu.edu/scmsAdmin/uploads/006/713/StahlpppRT.pdf>
- Stanovich, K. E., & Cunningham, A. E. (1993). Where does knowledge come from? Specific associations between print exposure and information acquisition. *Journal of Educational Psychology*, 85, 211-229. doi:10.1037/0022-0663.2.211
- Willingham, D. T. (2006). How knowledge helps: It speeds and strengthens reading comprehension, learning—and thinking. *American Educator*, 30, 30-37. Retrieved from <http://www.aft.org/periodical/american-educator/spring-2006/how-knowledge-helps>

5. Types of Literacy Assessment: Principles, Procedures, and Applications

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Abstract

This chapter focuses on key ideas for understanding literacy assessment to assist with educational decisions. Included is an overview of different literacy assessments, along with common assessment procedures used in schools and applications of assessment practices to support effective teaching. Readers of the chapter will gain an understanding of different types of assessments, how assessment techniques are used in schools, and how assessment results can inform teaching.

Learning Objectives

After reading this chapter, readers will be able to

1. explain how testing fits into the larger category of assessment;
2. describe different literacy assessments and how they are commonly used in schools;
3. discuss why assessment findings are judged based on their validity for answering educational questions and making decisions;
4. explain the importance of reliability and validity of test scores and why psychometric properties are important for interpreting certain types of assessment results;
5. critique literacy assessments in terms of how they can be used or misused.

Introduction

When the topic of educational assessment is brought up, most educators immediately think of high-stakes tests used to gauge students' progress in meeting a set of educational standards. It makes sense that much of the dialogue concerning educational assessment centers on high-stakes testing because it is this kind of assessment that is most controversial in the American education system, particularly since the vast majority of states have adopted the *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* (CCSS; National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010), along with high stakes tests intended to assess students' proficiency in meeting them. But high-stakes tests are actually just a fraction of assessment procedures used in schools, and many other assessments are as important in influencing instructional decisions. This chapter discusses a wide scope of literacy assessments commonly used in kindergarten through twelfth grade classrooms, along with ways to use results to make educational decisions.

Literacy Assessment

To understand literacy assessment, we first need to think about the term “literacy,” which is discussed throughout the chapters in this textbook. Literacy has traditionally been regarded as hav-

ing to do with the ability to read and write. More recently, literacy has evolved to encompass multidimensional abilities such as listening, speaking, viewing, and performing (NGA & CCSSO, 2010), along with cultural and societal factors (Snow, 2002) that can facilitate or constrain literacy development. This multidimensional definition of literacy requires educators and policy makers to conceptualize literacy in complex ways. Controversies arise when the richness of literacy is overly simplified by assessments that are not multidimensional or authentic, such as the overuse of multiple-choice questions. Educators may find the lack of authenticity of these assessments frustrating when results do not appear to represent what their students know and can do. On the other hand, more authentic assessment methods, such as observing students who are deliberating the meaning of texts during group discussions, do not precisely measure literacy skills, which can limit the kinds of decisions that can be made.

Even though the assessment of literacy using multiple choice items versus more authentic procedures seems like opposites, they do have an important feature in common: they both can provide answers to educational questions. Whether one approach is more valuable than the other, or whether both are needed, depends entirely on the kind of questions being asked. So if someone asks you if a multiple choice test is a good test or if observing a student's reading is a better assessment procedure, your answer will depend on many different factors, such as the purpose of the assessment, along with the quality of the assessment tool, the skills of the person who is using it, and the educational decisions needing to be made. This chapter will help you learn more about how to make decisions about using literacy assessments and how to use them to improve teaching and learning.

Taxonomy of Literacy Assessments

To understand the purposes of different types of literacy assessment, it is helpful to categorize them based on their purposes. It should be noted that there is much more research on the assessment of reading compared to assessment of other literacy skills, making examples in the chapter somewhat weighted toward reading assessments. Examples of assessments not limited to reading have also been included, where appropriate, as a reminder that literacy includes reading, writing, listening, speaking, viewing, and performing, consistent with the definition of literacy provided in Chapter 1 of this textbook.

Formal Assessments

One way to categorize literacy assessments is whether they are formal or informal. Formal literacy assessments usually involve the use of some kind of standardized procedures that require administering and scoring the assessment in the same way for all students. An example of formal assessments is state tests, which evaluate proficiency in one or more literacy domains, such as reading, writing, and listening. During the administration of state tests, students are all given the same test at their given grade levels, teachers read the same directions in the same way to all students, the students are given the same amount of time to complete the test (unless the student received test accommodations due to a disability), and the tests are scored and reported using the same procedures. Standardization allows control over factors that can unintentionally influence students' scores, such as how directions are given, how teachers respond to students' questions, and how teachers score students' responses. Certain state test scores are also usually classified as criterion-referenced because they measure how students achieve in reference to "a fixed set of predetermined criteria or learning standards" (edglossary.org, 2014). Each state specifies standards students should meet at each grade level, and state test scores reflect how well students achieved in relation to these standards. For example, on a scale of 1 to 4, if a student achieved a score of "2" this score would typically reflect that the student is not yet meeting the standards for their grade, and he or she may be eligible for extra help toward meeting them.

Another example of a criterion-referenced score is the score achieved on a permit test to drive a car. A predetermined cut score is used to decide who is ready to get behind the wheel of a car, and it is possible for all test takers to meet the criterion (e.g., 80% items correct or higher). Criterion-referenced test scores are contrasted with normatively referenced (i.e., norm-referenced) test scores, such as an SAT score. How a student does depends on how other students score who take the test, so there is no criterion score to meet or exceed. To score high, all a student has to do is do better than most everyone else. Norm-referenced scores are often associated with diagnostic tests, which will be described in further detail in the section of this chapter under the heading “Diagnostic Literacy Assessments.”

Informal Assessments

Informal literacy assessments are more flexible than formal assessments because they can be adjusted according to the student being assessed or a particular assessment context. Teachers make decisions regarding with whom informal assessments are used, how the assessments are done, and how to interpret findings. Informal literacy assessments can easily incorporate all areas of literacy such as speaking, listening, viewing, and performing rather than focusing more exclusively on reading and writing. For example, a teacher who observes and records behaviors of a group of students who view and discuss a video is likely engaging in informal assessment of the student’s reading, writing, speaking, listening, and/or performing behaviors.

Teachers engage in a multitude of informal assessments each time they interact with their students. Asking students to write down something they learned during an English language arts (ELA) class or something they are confused about is a form of informal assessment. Observing students engaging in cooperative learning group discussions, taking notes while they plan a project, and even observing the expressions on students’ faces during a group activity are all types of informal assessment. Likewise, observing students’ level of engagement during literacy tasks is informal assessment when procedures are flexible and individualized. Informal classroom-based self-assessments and student inventories used to determine students’ attitudes about reading may be useful toward planning and adjusting instruction as well (Afflerbach & Cho, 2011).

Methods for assessing literacy that fall somewhere between informal and formal include reading inventories, such as the *Qualitative Reading Inventory-5* (QRI-5; Leslie & Caldwell, 2010). Reading inventories require students to read word lists, passages, and answer questions, and although there are specific directions for how to administer and score them, they offer flexibility in observing how students engage in literacy tasks. Reading inventories are often used to record observations of reading behaviors rather than to simply measure reading achievement.

Formative Assessments

Another useful way to categorize literacy assessments is whether they are formative or summative. Formative assessments are used to “form” a plan to improve learning. An example of formative literacy assessment might involve a classroom teacher checking how many letters and sounds her students know as she plans decoding lessons. Students knowing only a few letter sounds could be given texts that do not include letters and words they cannot decode to prevent them from guessing at words. Students who know most of their letter sounds could be given texts that contain more letters and letter combinations that they can practice sounding out (e.g., the words in their texts might include all the short vowels and some digraphs they have learned, such as sh, th, ck). In this example, using a formative letter-sound assessment helped the teacher to select what to teach rather than simply evaluate what the student knows. Formative assessment is intended to provide teachers with information to improve students’ learning, based on what students need.

Summative Assessments

Summative assessments are used to “sum up” if students have met a specified level of proficiency or learning objective. State tests fall under the category of summative assessments because they are generally given to see which students have met a critical level of proficiency, as defined by standards adopted by a particular state. Unit tests are also summative when they sum up how students did in meeting particular literacy objectives by using their knowledge related to reading, writing, listening, speaking, viewing, and performing. A spelling test can be both formative and summative. It is formative when the teacher is using the information to plan lessons such as what to reteach, and it is summative if used to determine whether students showed mastery of a spelling rule such as “dropping the ‘e’ and adding ‘-ing.’” So the goal of formative assessment is mostly to *inform* teaching, whereas the goal of summative assessment is to *summarize* the extent to which students surpass a certain level of proficiency at an end-point of instruction, such as at the end of an instructional unit or at the end of a school year.

Literacy Screenings

Another way to categorize assessments is whether they are used for screening or diagnostic purposes. Literacy screenings share characteristics with medical screenings, such as hearing and vision checks in the nurse’s office or when a patient’s blood pressure is checked at the beginning of a visit to the physician’s office. Screenings are typically quick and given to all members of a population (e.g., all students, all patients) to identify potential problems that may not be recognized during day-to-day interactions. See Table 1 for examples of commonly used universal literacy screeners, along with links to information about their use.

Table 1. *Examples of Commonly Used Universal Literacy Screeners*

Universal Literacy Screeners	Links to additional information
AIMSweb	http://www.aimsweb.com/
Dynamic Indicators of Basic Early Literacy Skills—Next	https://dibels.uoregon.edu/
STAR Reading	http://www.renaissance.com/assess
Phonological Awareness Literacy Screening (PALS)	https://pals.virginia.edu/

Among the most popular literacy screeners used in schools are the *Dynamic Indicators of Basic Early Literacy Skills—Next Edition* (DIBELS Next; Good & Kaminski, 2011) and AIMSweb (Pearson, 2012). These screeners include sets of items administered to all children at certain grade levels (which is why they are often called “universal” literacy screeners) to do quick checks of their literacy development and identify potential problems that may not be visible using less formal means. Literacy screenings require young children to complete one-minute tasks such as naming sounds they hear in spoken words (e.g., “cat” has the sounds /c/ /a/ /t/), naming the sounds of letters they see (e.g., letter “p” says /p/), and starting in first grade, reading words in brief passages. Universal literacy screenings such as DIBELS Next and AIMSweb are often characterized as “fluency” assessments because they measure both accuracy and efficiency in completing tasks. For these assessments, the correct number of sounds, letters, or words is recorded and compared to a research-established cut point (i.e., benchmark) to decide which students are not likely to be successful in developing literacy skills without extra help. If a student scores below the benchmark, it indicates that the task was too difficult, and detection of this difficulty can signal a need for intervention to prevent future academic problems. Intervention typically involves more intensive ways of teaching, such as extra instruction delivered to small groups of students.

To learn more about commercially available screenings such as DIBELS Next and AIMSweb, or to learn about how to create your own personalized screenings, please visit <http://interventioncentral.org>. This site enables teachers to create their own individualized screen-

ing probes to assess a variety of basic literacy skills, such as identifying letters and sounds, segmenting sounds in spoken words, sounding out nonsense words, reading real words in connected text, and filling in blanks in reading passages (called “maze” procedures). Teachers can select the letters, words, and passages to be included on these individualized assessments. Probes to assess students’ math and writing skills can also be created; however, any customized screening probes should be used with caution, since they do not share the same measurement properties as well-researched screenings such as DIBELS Next and AIMSweb.

Diagnostic Literacy Assessments

The purposes of universal literacy screenings can be contrasted with those of diagnostic literacy assessments. Unlike literacy screeners, diagnostic tests are generally not administered to all students but are reserved for students whose learning needs continue to be unmet, despite their receiving intensive intervention. Diagnostic literacy assessments typically involve the use of standardized tests administered individually to students by highly trained educational specialists, such as reading teachers, special educators, speech and language pathologists, and school psychologists. Diagnostic literacy assessments include subtests focusing on specific components of literacy, such as word recognition, decoding, reading comprehension, and both spoken and written language. Results from diagnostic assessments may be used formatively to help plan more targeted interventions for students who do not appear to be responding adequately, or results can be combined with those from other assessments to determine whether students may have an educational disability requiring special education services.

An example of a widely used diagnostic literacy test is the *Wechsler Individual Achievement Test-Third Edition* (WIAT-III; Wechsler, 2009). The WIAT-III is typically used to assess the achievement of students experiencing academic difficulties who have not responded to research-based interventions. The WIAT-III includes reading, math, and language items administered according to the age of the student and his or her current skill level. The number of items the student gets correct (the raw score) is converted to a standard score, which is then interpreted according to where the student’s score falls on a bell curve (see Figure 1) among other students the same age and grade level who took the same test (e.g., the normative or “norm” sample).

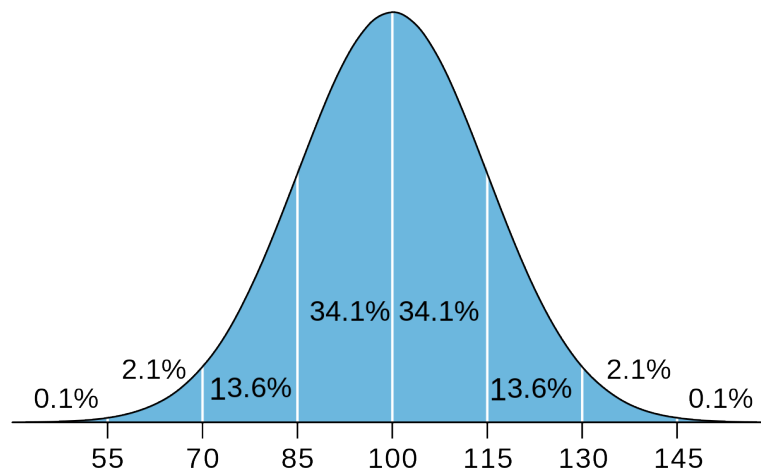


Figure 1. Bell curve showing the percentage of students who fall above and below the average score of 100 on a diagnostic achievement test.

Most students will score in the middle of the distribution, but some students will achieve extreme scores—either higher or lower than most other students. This is why the “tails” at either side of the bell curve slope downward from the big hump in the middle—this illustrates the decreas-

ing frequency of scores that are especially low or high. In other words, the more extreme the score, the fewer students are likely to achieve it. When students achieve at either extreme, it can signal the need for more specialized instruction related to the individual needs of the student (e.g., intervention or gifted services).

Diagnostic achievement tests are frequently referred to as “norm-referenced” (edglossary.org, 2013) because their scores are compared to scores of students from a norm sample. A norm sample is a group of individuals who were administered the same test items in the same way (i.e., using standardized procedures) while the test was being developed. Students who take the test have their performance compared to that of students from the norm sample to make meaning of the score. For example, if a student were given a diagnostic assessment and the score fell within the same range as most of the students in the norm sample, then his or her score would be considered “average.” If the student’s score fell much higher or lower than other students in the norm sample, then the score would not be considered average or typical because most of the other students did not score at either of these extremes.

Comparing students’ scores to a norm sample helps identify strengths and needs. Then again, just knowing where students’ scores fall on a bell curve does nothing to explain why they scored that way. An extremely low score may indicate a learning problem, or, it may signal a lack of motivation on the part of the student while taking the test. Perhaps a low score could even be due to a scoring error made by the tester. Even though a score from a diagnostic assessment may be quite precise, understanding *why* a student scored at a particular level requires additional information. Did observations during testing show that the student was distracted, uncooperative, or was squinting at items? It is often a combination of assessment information that helps identify why a student may have scored a certain way and is why testers often use their observations during testing to interpret the meaning of scores.

Group achievement tests such as *The Iowa Test of Basic Skills* (ITBS; Hoover Dunbar, & Frisbie, 2003) that include literacy subtests have properties that make them function somewhat like a screening and somewhat like a diagnostic test. Like screeners, they are administered to all students at a particular grade level, but unlike most screeners, they take more time to complete and are administered to entire classrooms rather than having at least some sections administered individually. Like diagnostic tests, they tend to produce scores that are norm-referenced. Students’ performance is compared to a norm group to see how they compare among peers, but unlike diagnostic tests, the tester is not able to discern how well scores represent students’ abilities because testers are not able to observe all of the students’ testing behaviors that may impact the interpretation of scores (e.g., levels of engagement, motivation).

For many diagnostic literacy tests, reviews are available through sources such as the *Mental Measurements Yearbook* (MMY). Versions of the MMY are available in hard copy at many libraries, as well as online for free for students at colleges and universities whose libraries pay a fee for access. Reviews are typically completed by experts in various fields, including literacy and measurement experts. Reviews also include complete descriptions of the test or assessment procedure, who publishes it, how long it takes to administer and score, a review of psychometric properties, and a critique of the test in reference to decisions people plan to make based on findings. It is important for teachers and other educators who use tests to understand the benefits and problems associated with selecting one test over another, and resources such as the MMY offer reviews that are quick to locate, relatively easy to comprehend (when one has some background knowledge in assessment), and are written by people who do not profit from the publication and sale of the assessment.

Single Point Estimates

Literacy assessments that are completed only one time provide a single point estimate of a student's abilities. An example of a single point estimate is a student's word identification score from a diagnostic achievement test. If the student's score is far below what is expected for his or her age or grade level, then the score signals a need to determine what is at the root of low performance. Alternatively, a single low score does not necessarily signal a lack of ability to learn, since with a change in instruction, the student might begin to progress much faster and eventually catch up to his or her typical age-based peers. To assess a student's rate of learning, progress-monitoring assessments are needed.

Progress-Monitoring Literacy Assessments

To monitor a student's progress in literacy, assessments are needed that actually measure growth. Rather than just taking a snapshot of the student's achievement at a single point in time, progress-monitoring assessments provide a baseline (i.e., the starting point) of a student's achievement, along with periodic reassessment as he or she is progressing toward learning outcomes. Such outcomes might include achieving a benchmark score of correctly reading 52 words per minute on oral reading fluency passages or a goal of learning to "ask and answer key details in a text" (CCSS.ELA-Literacy.RL.1.2) when prompted, with 85% accuracy. The first outcome of correctly reading 52 words per minute would likely be measured using progress-monitoring assessments, such as DIBELS Next and AIMSweb. These screeners are not only designed to measure the extent to which students are at risk for future literacy-related problems at the beginning of the school year but also to monitor changes in progress over time, sometimes as often as every one or two weeks, depending on individual student factors. The second outcome of being able to "ask and answer key details in a text" could be monitored over time using assessments such as state tests or responses on a qualitative reading inventory. Being able to work with key details in a text could also be informally assessed by observing students engaged in classroom activities where this task is practiced.

Unlike assessments that are completed only one time, progress-monitoring assessments such as DIBELS Next and AIMSweb feature multiple, equivalent versions of the same tasks, such as having 20 oral reading fluency passages that can be used for reassessments. Using different but equivalent passages prevents artificial increases in scores that would result from students rereading the same passage. Progress-monitoring assessments can be contrasted with diagnostic assessments, which are not designed to be administered frequently. Administering the same subtests repeatedly would not be an effective way to monitor progress. Some diagnostic tests have two equivalent versions of subtests to monitor progress infrequently—perhaps on a yearly basis—but they are simply not designed for frequent reassessments. This limitation of diagnostic assessments is one reason why screeners like DIBELS Next and AIMSweb are so useful for determining how students respond to intervention and why diagnostic tests are often reserved for making other educational decisions, such as whether a student may have an educational disability.

Progress-monitoring assessments have transformed how schools determine how a student is responding to intervention. For example, consider the hypothetical example of Jaime's progress-monitoring assessment results in second grade, shown in Figure 2. Jaime was given oral reading fluency passages from a universal literacy screener, and then his progress was monitored to determine his response to a small group literacy intervention started in mid-October. Data points show the number of words Jaime read correctly on each of the one-minute reading passages. Notice how at the beginning of the school year, his baseline scores were extremely low, and when compared to the beginning of the year second grade benchmark (Dynamic Measurement Group, 2010) of 52¹ words per minute (Good & Kaminski, 2011), they signaled he was "at risk" of not reaching later benchmarks without receiving intensive intervention. Based on Jaime's baseline scores, intervention team members decided that he should receive a research-based literacy intervention to help him

read words more easily so that his oral reading fluency would increase at least one word per week. This learning goal is represented by the “target slope” seen in Figure 2. During the intervention phase, progress-monitoring data points show that Jaime began making improvements toward this goal, and the line labeled “slope during intervention” shows that he was gaining at a rate slightly faster than his one word per week goal.

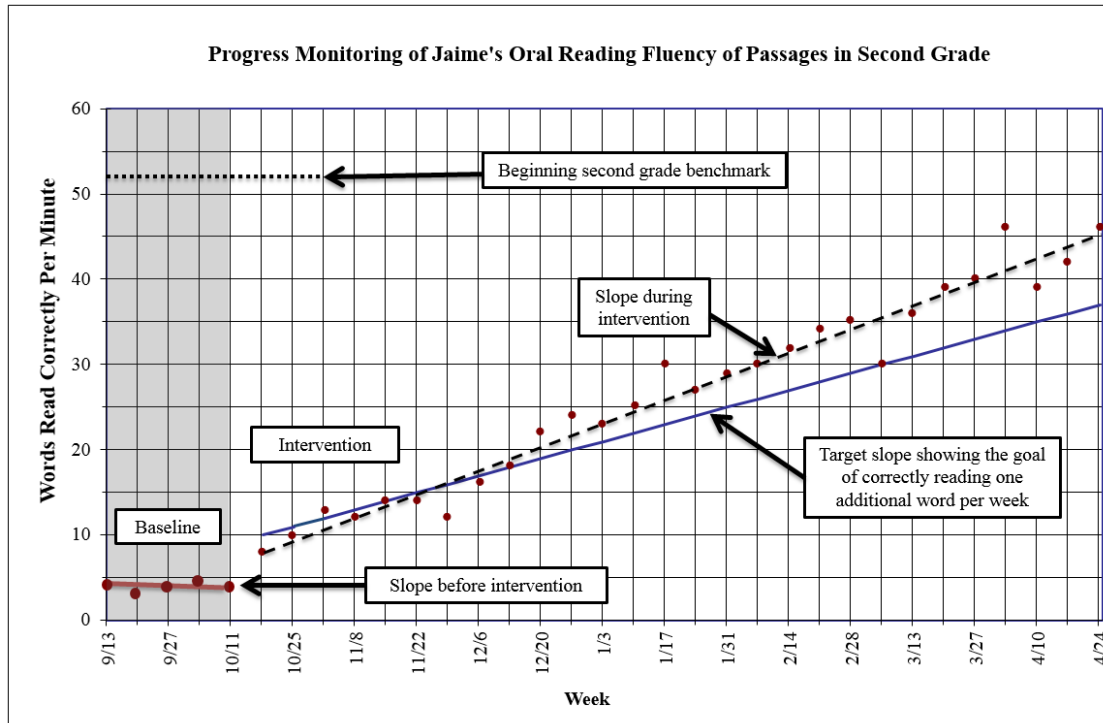


Figure 2. Progress-monitoring graph of response to a reading intervention.

When looking at Jaime’s baseline data, notice how the data points form a plateau. If his progress continued at this same rate, by the end of the school year, he would be even farther behind his peers and be at even greater risk for future reading problems. When interpreting the graph in Figure 2, it becomes clear that intensive reading intervention was needed. Notice after the intervention began how Jaime’s growth began to climb steeply. Although he appeared to be responding positively to intervention, in reality, by the end of second grade, students whose reading ability progresses adequately should be reading approximately 90 words correctly per minute (Good & Kaminski, 2011). Based on this information, Jaime is not likely to reach the level of reading 90 words correctly by the end of second grade and will probably only reach the benchmark expected for a student at the beginning of second grade. These assessment data suggest that Jaime’s intervention should be intensified for the remainder of second grade to accelerate his progress further. It is also likely that Jaime will need to continue receiving intervention into third grade, and progress monitoring can determine, along with other assessment information, when his oral reading fluency improves to the point where intervention may be changed, reduced, or even discontinued. You may wonder how the intervention team would determine whether Jaime is progressing at an adequate pace when he is in third grade. Team members would continue to monitor Jaime’s progress and check to make sure his growth line shows that he will meet benchmark at the end of third grade (i.e., correctly reading approximately 100 words per minute; Good & Kaminski, 2011). If his slope shows a lack of adequate progress, his teachers can revisit the need for intervention to ensure that Jaime does not fall behind again.

Some schools monitor their students' progress using computer-adapted assessments, which involve students responding to test items delivered on a computer. Computer-adapted assessments are designed to deliver specific test items to students, and then adapt the number and difficulty of items administered according to how students respond (Mitchell, Truckenmiller, & Petscher, 2015). Computer-adapted assessments are increasing in popularity in schools, in part, because they do not require a lot of time or effort to administer and score, but they do require schools to have an adequate technology infrastructure. The reasoning behind using these assessments is similar to other literacy screeners and progress-monitoring assessments—to provide effective instruction and intervention to meet all students' needs (Mitchell et al., 2014).

Although many literacy screening and progress-monitoring assessment scores have been shown to be well-correlated with a variety of measures of reading comprehension (see, for example, Goffreda & DiPerna, 2010) and serve as reasonably good indicators of which students are at risk for reading difficulties, a persistent problem with these assessments is that they provide little guidance to teachers about what kind of literacy instruction and/or intervention a student actually needs. A student who scores low at baseline and makes inadequate progress on oral reading fluency tasks may need an intervention designed to increase reading fluency, but there is also a chance that the student lacks the ability to decode words and really needs a decoding intervention (Murray, Munger, & Clonan, 2012). Or it could be that the student does not know the meaning of many vocabulary words and needs to build background knowledge to read fluently (Adams, 2010–2011), which would require the use of different assessment procedures specifically designed to assess and monitor progress related to these skills. Even more vexing is when low oral reading fluency scores are caused by multiple, intermingling factors that need to be identified before intervention begins. When the problem is more complex, more specialized assessments are needed to disentangle the factors contributing to it.

A final note related to progress-monitoring procedures is the emergence of studies suggesting that there may be better ways to measure students' progress on instruments such as DIBELS Next compared to using slope (Good, Powell-Smith, & Dewey, 2015), which was depicted in the example using Jaime's data. In a recent conference presentation, Good (2015) argued that the slope of a student's progress may be too inconsistent to monitor and adjust instruction, and he suggested a new (and somewhat mathematically complex) alternative using an index called a student growth percentile. A student growth percentile compares the rate at which a student's achievement is improving in reference to how other students *with the same baseline score* are improving. For example, a student reading 10 correct words per minute on an oral reading fluency measure whose growth is at the 5th percentile is improving much more slowly compared to the other children who also started out reading only 10 words correctly per minute. In this case, a growth percentile of five means that the student is *progressing* only as well as or better than five percent of peers who started at the same score, and also means that the current instruction is not meeting the student's needs. Preliminary research shows some promise in using growth percentiles to measure progress as an alternative to slope, and teachers should be on the lookout for more research related to improving ways to monitor student progress.

Linking Assessment to Intervention

How can teachers figure out the details of what a student needs in terms of intervention? They would likely use a variety of informal and formal assessment techniques to determine the student's strengths and needs. The situation might require the use of diagnostic assessments, a reading or writing inventory, the use of observations to determine whether the student is engaged during instruction, and/or the use of assessments to better understand the student's problem-solving and

other thinking skills. It may be a combination of assessment techniques that are needed to match research-based interventions to the student's needs.

You may be starting to recognize some overlap among different types of assessments across categories. For example, state tests are usually both formal and summative. Literacy screeners and progress-monitoring assessments are often formal and formative. And some assessments, such as portfolio assessments, have many overlapping qualities across the various assessment categories (e.g., portfolios can be used formatively to guide teaching and used summatively to determine if students met an academic outcome).

In bringing up portfolio assessments, this takes us back to points raised at the beginning of this chapter related to the authenticity of literacy assessments. So why do multiple choice tests exist if options such as portfolio assessment, which are so much more authentic, are an option? High-quality multiple choice tests tend to have stronger psychometric properties (discussed in the next section) than performance assessments like portfolios, which make multiple choice tests desirable when assessment time is limited and scores need to have strong measurement properties. Multiple choice test items are often easy to score and do not require a great deal of inference to interpret (i.e., they are “objective”), which are some of the reasons why they are popularly used. Portfolio assessments often take longer to do but also reflect the use of many important literacy skills that multiple choice items simply cannot assess. Based on this discussion, you may wonder if portfolio assessments are superior to multiple choice tests, or if the reverse is true. As always, an answer about a preferred format depends on the purpose of the assessment and what kinds of decisions will be made based on findings.

Psychometric Principles of Literacy Assessment

A chapter about literacy assessment would not be complete without some discussion about psychometric properties of assessment scores, such as reliability and validity (Trochim, 2006). Reliable assessment means that the information gathered is consistent and dependable—that the same or similar results would be obtained if the student were assessed on a different day, by a different person, or using a similar version of the same assessment (Trochim, 2006). To think about reliability in practice, imagine you were observing a student's reading behaviors and determined that the student was struggling with paying attention to punctuation marks used in a storybook. You rate the student's proficiency as being a one on a one to four scale, meaning he or she reads as though no punctuation marks were noticed. Your colleague observed the student reading the same book at the same time you were observing, and he rated the student's proficiency as a “three,” meaning that the student was paying attention to most of the punctuation in the story, but not all. The difference between your rating and your colleague's rating signals a lack of reliability among raters using that scale. If these same inconsistencies in ratings arose across other items on the reading behavior scale or with other students, you would conclude that the scale has problems. These problems could include that the scale is poorly constructed, or that there may simply be inter-rater reliability problems related to a lack of training or experience with the people doing the ratings.

Reliability of formal assessment instruments, such as tests, inventories, or surveys, is usually investigated through research that is published in academic journal articles or test manuals. This kind of research involves administering the instrument to a sample of individuals, and findings are reported based on how those individuals scored. These findings provide “estimates” of the test's reliability, since indexes of reliability will vary to a certain degree, depending on the sample used in the research. The more stable reliability estimates are across multiple diverse samples, the more teachers can count on scores or ratings being reliable for their students. When reliability is unknown, then decisions made based on assessment information may not be trustworthy. The need for strong

reliability versus the need for authenticity (i.e., how well the assessment matches real life literacy situations) is a rivalry that underlies many testing debates.

In addition to assessments needing to be reliable, information gathered from assessments must also be valid for making decisions. A test has evidence of validity when research shows that it measures what it is supposed to measure (Trochim, 2006). For example, when a test that is supposed to identify students at risk for writing problems identifies students with actual writing problems, then this is evidence of the test's validity. A weekly spelling test score may lack evidence of validity for applied spelling ability because some students may just be good memorizers and not be able to spell the same words accurately or use the words in their writing. When assessment information is not reliable, then it cannot be valid, so reliability is a keystone for the evaluation of assessments.

Sometimes, a test that seems to test what it is supposed to test will have issues with validity that are not apparent. For example, if students are tested on math applications problems to see who may need math intervention, a problem could arise if the children may not be able to read the words in the problems. In this case, the students may get many items incorrect, making the math test more like a reading test for these students. It is research on validity and observations by astute educators that help uncover these sorts of problems and prevent the delivery of a math intervention when what may actually be needed is a reading intervention.

The validity issue described above is one reason why some students may receive accommodations (e.g., reading a test to students) because accommodations can actually increase the validity of a test score for certain students. If students with reading disabilities had the above math test read to them, then their resulting scores would likely be a truer indicator of math ability because the accommodation ruled out their reading difficulties. This same logic applies to English language learners (ELLs) who can understand spoken English much better than they can read it. If a high school exam assessing knowledge of biology is administered and ELL students are unable to pass it, is it because they do not know biology or is it because they do not know how to read English? If the goal is to assess their knowledge of biology, then the test scores may not be valid.

Another example of a validity issue occurs if a student with visual impairment were assessed using a reading task featuring print in 12-point font. If the student scored poorly, would you refer him or her for reading intervention? Hopefully, not. The student might actually need reading intervention, but there is a validity problem with the assessment results, so that in reality, you would need more information before making any decisions. Consider that when you reassess the student's reading using large print that the student's score increases dramatically. You then know that it was a print size problem and not a reading problem that impacted the student's initial score. On the other hand, if the student still scored low even with appropriately enlarged print, you would conclude that the student may have a visual impairment *and* a reading problem, in which case providing reading intervention, along with the accommodation of large print material, would be needed.

Some Controversies in Literacy Assessment

While there is little controversy surrounding literacy assessments that are informal and part of normal classroom practices, formal assessments activate huge controversy in schools, in research communities, on Internet discussion boards, and in textbooks like this. When considering the scope of educational assessment, one thing is clear: many school districts give far too many tests to far too many students and waste far too many hours of instruction gathering data that may or may not prove to have any value (Nelson, 2013). The over testing problem is especially problematic when so much time and effort go into gathering data that do not even end up being used. Whether a school is overwhelmed with testing is not universal. School districts have a great deal of influence over the use of assessments, but all too often when new assessments are adopted, they are *added* to a collection of previously adopted assessments, and the district becomes unsure about which assessments are

still needed and which should be eliminated. Assessments also are added based on policy changes at federal and state levels. For example, the passing of the *No Child Left Behind Act of 2001* (NCLB, 2002) expanded state testing to occur in all grades three through eight, compared to previous mandates which were much less stringent.

Some tests are mandated for schools to receive funding, such as state tests; however, the use of other assessments is largely up to school districts. It is important for educators and school leaders to periodically inventory procedures being used, discuss the extent to which they are needed, and make decisions that will provide answers without over testing students. In other words, the validity of assessments is not only limited to how they are used with individual students but must be evaluated at a larger system level in which benefits to the whole student body are also considered. When assessments provide data that are helpful in making instructional decisions but also take away weeks of instructional time, educators and school leaders must work toward solutions that maximize the value of assessments while minimizing potential negative effects. Not liking test findings is a different issue than test findings not being valid. For example if a test designed to identify students behind in reading is used to change instruction, then it may be quite valuable, even if it is unpleasant to find out that many students are having difficulty.

As a society, we tend to want indicators of student accountability, such as that a minimum standard has been met for students to earn a high school diploma. Often, earning a diploma requires students to pass high-stakes exit exams; however, this seemingly straightforward use of test scores can easily lead to social injustice, particularly for students from culturally and linguistically diverse backgrounds. Because high-stakes tests may be inadequate at providing complete information about what many students know and can do, the International Reading Association (IRA, 2014) released a position statement that included the following recommendation:

High school graduation decisions must be based on a more complete picture of a student's literacy performance, obtained from a variety of systematic assessments, including informal observations, formative assessments of schoolwork, and consideration of out-of-school literacies, as well as results on standardized formal measures. (p. 2)

The IRA recommends that “teacher professional judgment, results from formative assessments, and student and family input, as well as results from standardized literacy assessments” (p. 5) serve as adequate additions in making graduation decisions. There is no easy answer for how to use assessments to precisely communicate how well students are prepared for college, careers, and life, and we are likely many reform movements away from designing a suitable plan. Nevertheless, the more educators, families, and policy-makers know about assessments—including the inherent benefits and problems that accompany their use—the more progress can be made in refining techniques to make informed decisions designed to enhance students' futures. Literacy assessments can only be used to improve outcomes for students if educators have deep knowledge of research-based instruction, assessment, and intervention and can use that knowledge in their classrooms. For this reason, information from this chapter should be combined with other chapters from this book and other texts outlining the use of effective literacy strategies, including students who are at risk for developing reading problems or who are English language learners.

Summary

Although literacy assessment is often associated with high-stakes standardized tests, in reality, literacy assessments encompass an array of procedures to help teachers make instructional decisions. This chapter highlighted how teachers can use literacy assessments to improve instruction, but in reality, assessment results are frequently used to communicate about literacy with a variety of indi-

viduals, including teams of educators, specialists, and family and/or community members. Knowing about the different kinds of assessments and their purposes will allow you to be a valuable addition to these important conversations.

Literacy assessments can be informal or formal, formative or summative, screenings or diagnostic tests. They can provide data at single points in time or to monitor progress over time. Regardless of their intended purpose, it is important that assessment information be trustworthy. It is also important that teachers who use assessments understand associated benefits and difficulties of different procedures. An assessment that is ideal for use in one circumstance may be inappropriate in another. For this reason, teachers who have background in assessment will be better equipped to select appropriate assessments which have the potential to benefit their students, and they also will be able to critique the use of assessments in ways that can improve assessment practices that are more system-wide. Literacy assessments are an important part of educational decision making, and therefore, it is essential that teachers gain a thorough understanding of their uses and misuses, gain experience interpreting information obtained through assessment, and actively participate in reform movements designed not just to eliminate testing but to use assessments in thoughtful and meaningful ways.

Questions and Activities

1. Using some of the terms learned from this chapter, discuss some commonly used high-stakes literacy assessments, such as state-mandated tests or other tests used in schools.
2. Explain ways in which some forms of literacy assessment are more controversial than others and how the more controversial assessments are impacting teachers, students, and the education system.
3. What are the differences between formative and summative assessments? List some examples of each and how you currently use, or plan to use these assessments in your teaching.
4. A colleague of yours decides that she would like to use a diagnostic literacy test to assess all students in her middle school to see who has reading, spelling, and/or writing problems. The test must be administered individually and will take approximately 45 minutes per student. Although there is only one form of the assessment, your colleague would like to administer the test three times per year. After listening carefully to your colleague's ideas, what other ideas do you have that might help meet your colleague's goal besides the use of a diagnostic literacy test?

References

- Adams, M. J. (2010–2011, Winter). Advancing our students' language and literacy: The challenge of complex texts. *American Educator*, 34, 3–11, 53. Retrieved from <http://www.aft.org/sites/default/files/periodicals/Adams.pdf>
- Afflerbach, P., & Cho, B. Y. (2011). The classroom assessment of reading. In M. J. Kamil, P. D. Pearson, E. B. Moje, & P. P. Afflerbach (Eds.), *Handbook of reading research* (Vol. 4, pp. 487–514). New York, NY: Routledge.
- Dynamic Measurement Group (2010, December 1). *DIBELS Next benchmark goals and composite scores*. Retrieved from <https://dibels.uoregon.edu/docs/DIBELSNextFormerBenchmarkGoals.pdf>
- Edglossary (2013, August 29). *Norm-referenced test* [online]. Retrieved from <http://edglossary.org/norm-referenced-test/>

- Edglossary (2014, April 30). *Criterion-referenced test* [online]. Retrieved from <http://edglossary.org/criterion-referenced-test/>
- Goffreda, C. T., & DiPerna, J. C. (2010). An empirical review of psychometric evidence for the Dynamic Indicators of Basic Early Literacy Skills. *School Psychology Review*, 39, 463-483. Available at <http://www.nasponline.org/publications/periodicals/spr/volume-39/volume-39-issue-3/an-empirical-review-of-psychometric-evidence-for-the-dynamic-indicators-of-basic-early-literacy-skills>
- Good, R. H. (2015, May 19). *Improving the efficiency and effectiveness of instruction with progress monitoring and formative evaluation in the outcomes driven model*. Invited presentation at the International Conference on Cognitive and Neurocognitive Aspects of Learning: Abilities and Disabilities, Haifa, Israel. Retrieved from https://dibels.org/papers/Roland_Good_Haifa_Israel_2015_Handout.pdf
- Good, R. H., & Kaminski, R. A. (Eds.). (2011). *DIBELS Next assessment manual*. Eugene, OR: Dynamic Measurement Group, Inc. Retrieved from http://www.d11.org/edss/assessment/DIBELS%20NextAmplify%20Resources/DIBELSNext_AssessmentManual.pdf
- Good, R. H., Powell-Smith, K. A., & Dewey, E. (2015, February). *Making reliable and stable progress decisions: Slope or pathways of progress?* Poster presented at the Annual Pacific Coast Research Conference, Coronado, CA.
- Hoover, H. D., Dunbar, S. B., & Frisbie, D. A. (2003). *The Iowa Tests: Guide to research and development*. Chicago, IL: Riverside Publishing.
- International Reading Association. (2014). *Using high-stakes assessments for grade retention and graduation decisions: A position statement of the International Reading Association*. Retrieved from <http://www.literacyworldwide.org/docs/default-source/where-we-stand/high-stakes-assessments-position-statement.pdf>
- Leslie, L., & Caldwell, J. S. (2010). *Qualitative reading inventory-5*. Boston, MA: Pearson.
- Mitchell, A. M., Truckenmiller, A., & Petscher, Y. (2015, June). Computer-adapted assessments: Fundamentals and considerations. *Communique*, 43(8), 1, 22-24.
- Murray, M. S., Munger, K. A., & Clonan, S. M. (2012). Assessment as a strategy to increase oral reading fluency. *Intervention in Schools and Clinic*, 47, 144-151. doi:10.1177/1053451211423812
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects*. Washington, DC: Author. Retrieved from http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf
- Nelson, H. (2013). *Testing more, teaching less: What American's obsession with student testing costs in money and lost instructional time*. Retrieved from <http://www.aft.org/sites/default/files/news/testingmore2013.pdf>
- No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).
- Pearson. (2012). *AIMS web technical manual (R-CBM and TEL)*. NCS Pearson, Inc. Retrieved from <http://www.aimsweb.com/wp-content/uploads/aimsweb-Technical-Manual.pdf>
- Snow, C. (Chair). (2002). RAND reading study group: Reading for understanding, toward an R&D program in reading comprehension. Santa Monica, CA: RAND. Retrieved from http://www.prgs.edu/content/dam/rand/pubs/monograph_reports/2005/MR1465.pdf
- Trochim, W. K. (2006). *Research methods knowledge base: Construct validity*. Retrieved from <http://www.socialresearchmethods.net/kb/relandval.php>
- Wechsler, D. (2009). *Wechsler Individual Achievement Test* (3rd ed.). San Antonio, TX: Pearson.

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Endnotes

- 1: The benchmark of 52 words per minute is considered a “criterion-referenced” score because a student’s performance is judged against a criterion—in this case, the benchmark. Recall that scores obtained on diagnostic literacy assessments are norm-referenced because they are judged against how others in a norm group scored. Some progress-monitoring assessments provide both criterion-referenced and norm-referenced scores to aid in decision-making when more than one type of score is needed. [Return](#)

6. Approaches to Writing Instruction in Elementary Classrooms

Vicki McQuitty

Abstract

This chapter focuses on the different approaches to writing instruction that teachers use in elementary classrooms. It includes an overview of each approach, a description of how each is implemented, an explanation of how each has been critiqued, and research evidence about each approach's effectiveness. It also provides recommendations about how elementary teachers can incorporate the most promising components of each approach into their writing instruction.

Learning Objectives

After reading this chapter, readers will be able to

1. describe different approaches to writing instruction;
2. explain the benefits of each approach to teaching writing;
3. discuss how educators and researchers have critiqued different ways of teaching writing;
4. analyze the research conducted on different approaches to writing instruction;
5. integrate ideas about effective writing instruction in elementary classrooms.

Introduction

Imagine you are a second grader at the beginning of the school year. During writing time your teacher tells you to write about your summer vacation. What do you do? To an observer, it looks like you sat down at your desk, took out pencil and paper, wrote your story, and then drew a picture to accompany it. Yet, was the process really so simple? What happened inside your mind to get from the blank paper to a story about your summer? What thought processes and skills did you use to write this “simple” composition?

Writing is an important skill that is used throughout a person's life for academic, professional, and personal purposes. If you are a proficient writer, much of the process is automatic and requires little conscious effort. But consider it from a child's point of view. For a novice writer, there are many things to think about: forming letters on the page, writing left to right in a horizontal line, leaving spaces between words, using letters to represent the sounds in words, capitalizing proper nouns and the beginning of sentences, and placing punctuation in appropriate places. At the same time, like adult writers, children must also devote attention to generating and organizing ideas, including elements appropriate for the genre, choosing vocabulary to communicate the ideas clearly, and monitoring the quality of the text. Thus, writing places substantial cognitive demands on young children because they must attend to many things simultaneously in order to produce an effective text.

Because writing is such a challenging task, children need high quality instruction to develop their writing skills. Over the years, teachers have taught writing in many different ways, and components of each approach are still found in classrooms today. To understand current writing

instruction, it is helpful to understand how it has been taught in the past and why educators have introduced new ways of teaching it over time. This chapter describes the different approaches that have been used, shows how each has been critiqued, and includes research evidence about the effectiveness of each approach. Each section also includes recommendations for how teachers can best incorporate the components of each approach into their classroom practice.

Penmanship Approach

In the United States, the earliest approach to writing instruction with young children was teaching penmanship, a practice that dates back to the colonial era. Penmanship focused on transcription—the physical act of writing—and it involved producing legible, accurate, and even beautifully formed letters on the page. Children learned penmanship through imitation and practice, so they copied models over and over again from printed copybooks. Young children began by practicing single letters, followed by words, sentences, and eventually paragraphs. In some classrooms, the teacher led the entire class to write letters in unison as she gave verbal commands: “Up, down, left curve, quick” (Thornton, 1996). Sometimes children even practiced the motions of writing, such as pushing and pulling the pencil on the paper, without writing actual letters. Regardless of how penmanship was taught, though, “writing” instruction consisted of copying rather than writing original words.

The goal of penmanship instruction was to ensure children formed letters correctly so they could produce neat, readable writing. However, students, and even many teachers, disliked the boring and mechanical drills. By the 1930s, some educators began to critique penmanship as an overly narrow approach to writing instruction (Hawkins & Razali, 2012). They suggested penmanship was not an end in itself, but a tool for communication. This led some teachers to encourage children to write their own ideas for real purposes, such as making classroom signs or recording lunch orders. Teachers’ manuals began to separate penmanship and writing instruction, and penmanship was renamed “handwriting.”

Handwriting instruction continued in most classrooms throughout the 20th century, but it was given less priority as the curriculum began to focus on writing original compositions. At the same time, some educators began to view handwriting as unimportant because the use of technology (e.g., computers, tablets) has reduced the need for handwritten texts. Teachers devoted less and less time to formal handwriting drills, though many children still practiced copying the alphabet in workbooks. Today, handwriting is usually taught in kindergarten through third grade, but much less frequently in the fourth, fifth, and sixth grades (Cutler & Graham, 2008; Gilbert & Graham, 2010; Puranik, Otaiba, Sidler, & Greulich, 2014).

Even though handwriting has been taught in U.S. elementary schools for over two centuries, research on its effectiveness is relatively new. Recent studies show that handwriting is an important part of writing instruction, but for different reasons than educators believed in the past. The appearance of the writing, which was the focus of the penmanship approach, is no longer considered important for its own sake. Instead, researchers now know that proficient writers possess fluent handwriting skills, just as strong readers possess fluent decoding skills¹. They form letters quickly and automatically, without much conscious thought, which allows them to devote attention to the higher level aspects of writing such as generating ideas and monitoring the quality of their text (Christensen, 2009). Consider a child who wants to write, “My dog is brown.” Because her mind can remember only a limited amount of information at once, if she directs all of her attention to producing the letters **M**, **y**, **d**, **o**, and **g**, she has no way to hold the idea “is brown” in her memory. As a result, she may forget what she intended to write at the end of the sentence. Thus, the benefit of handwriting instruction is to help children form letters effortlessly so they can think about their ideas rather than transcription.

Research shows that the most effective handwriting instruction occurs in short, frequent, and structured lessons (Christensen, 2009). Lessons should last 10–20 minutes each day and focus on writing fluently and automatically rather than on forming perfect letters or positioning the letters precisely between the lines. It is helpful if teachers demonstrate how to form each letter and then provide time for children to practice writing single letters, individual words, and longer texts. Programs exist for both manuscript and cursive writing, and they often teach the letters in a particular order that has been found to facilitate handwriting development. However, handwriting instruction should only occur until children can form letters fluently. As their handwriting becomes automatic, they should spend time writing for authentic audiences and purposes rather than practicing letter formation.

Rules-Based Approach

Teachers in the U.S. have taught children the rules of language and writing since colonial times. Initially, these lessons occurred in the subject of “grammar” and were considered separate from “writing” (penmanship) instruction. However, as children began composing original sentences, grammar and writing instruction began to merge. By the late 1800s, teachers viewed rules-based instruction as a way to improve students’ writing (Weaver, 1996).

Rules-based instruction involves teaching children to correctly write words and sentences. It includes activities like identifying parts of speech, locating sentence elements such as subjects and predicates, learning and applying rules for subject–verb agreement and pronoun use, and practicing punctuation, capitalization, and spelling. One common exercise is sentence correction. Teachers provide sentences with language errors and ask children to correct the mistakes. Students may also write original sentences for the purpose of practicing how to use language. For example, they may be asked to write a sentence that uses certain adjectives or homonyms appropriately. Other activities include adding prefixes or suffixes to lists of words, joining sentences by adding conjunctions, and changing fragments into complete sentences.

Many educators have critiqued the rules-based approach to teaching writing as being decontextualized and inauthentic. It is decontextualized because children mostly write isolated words or sentences rather than full texts. It is inauthentic because, in the world outside of school, people do not write in decontextualized ways. They write stories, blogs, emails, and reports, and those compositions serve meaningful purposes—to entertain, inform, or persuade their readers. Writers communicate meaning, not just correct sentences, so they must generate meaningful ideas and organize their thoughts logically. However, rules-based instruction does not address these higher level aspects of writing. Activities such as correcting sentences and adding prefixes to lists of words bear little resemblance to writing people use in their everyday lives.

Because rules-based instruction is decontextualized from writing authentic texts, it does not improve children’s writing skills. As early as 1926, elementary teachers reported that, “the study of grammar did not seem to affect pupils’ speech and writing” (Cotner, 1926, p. 525). Later research provided empirical evidence to support what teachers noticed in their classrooms. Many studies synthesized by Myhill and Watson (2013) have shown that teaching children rules apart from meaningful writing tasks makes no impact on how they write. Even when students perform accurately on decontextualized activities, they often do not apply that knowledge in their own writing. For example, a child who can add punctuation to a sentence written by the teacher often incorrectly punctuates sentences in his or her original composition.

One activity similar to rules-based instruction but that research does support as effective is sentence combining (Myhill & Watson, 2013). In sentence combining, children merge two or more short, choppy sentences into one longer, more effective sentence. For example, they may be asked to combine *Tim has a dog. The dog is tall and black* into *Tim has a tall, black dog*. Practice combin-

ing isolated sentences seems to positively impact students' original writing. Children who become proficient at combining sentences provided by the teacher tend to write longer, more complex sentences in their own compositions. However, it is important to recognize that most of the research on sentence combining has been conducted with high school and university students. Some evidence exists (Saddler, Behforooz, & Asaro, 2008; Saddler & Graham, 2005) that it also positively impacts older elementary students' writing, but more research is needed to determine how effective sentence combining is for younger students.

While decontextualized rules-based instruction does not improve students' writing, there is some evidence that teaching grammar *within* the context of writing is beneficial (Jones, Myhill, & Bailey, 2013). A contextualized approach looks very different from traditional rules-based instruction. In a traditional approach, children might learn about adjectives by underlining them in sentences printed on a worksheet. In a contextualized approach, they add adjectives to their stories to describe the characters and the setting. The teacher might introduce adjectives as “describing words” and ask the children to give some examples. She then will show them how to use adjectives to create a vivid description of a story setting, and the students will use adjectives to create settings in their own stories. Using adjectives in context, rather than on a worksheet, provides a meaningful purpose for learning about them. In addition, because children apply their knowledge of adjectives directly to their writing, the quality of their writing improves.

Process Writing Approaches

Like the name suggests, process writing instruction focuses on the process of composing texts. In this approach, children learn to brainstorm ideas, write rough drafts, and revise and edit those drafts. Process writing emerged in the 1970s, sparked by teachers' growing rejection of a rules-based approach. At the same time, professional authors, such as the Pulitzer Prize winning journalist Donald Murray (Murray, 1968), began to advocate a “workshop” approach to writing instruction that engaged students in the same writing process that published authors used. Soon thereafter, researchers began to study writers as they composed original texts (Emig, 1971; Hayes & Flower, 1980). The findings of this research provided models of 1) what writers do as they compose and 2) the composing process that occurs in writers' minds. Importantly, both this research and the instruction proposed by professional authors such as Murray were based on the writing processes used by adult writers rather than those used by children. However, despite this limitation, process writing became increasingly prevalent in elementary schools.

Because process writing began, in part, in response to criticisms of rules-based writing instruction, it emphasizes what rules-based approaches did not. Rather than teaching rules for creating sentences, it focuses on writing full texts and meaningful ideas, and it de-emphasizes spelling, punctuation, and grammar. Although educators and textbooks often talk about *the* process approach to writing instruction, in reality it is many varied approaches that all share a focus on the writing process. Consider the writing instruction in the following second grade classrooms. Mr. Johnson assigns a writing topic to his class every Monday morning. One Monday he asked them to write about this prompt: “If you could be any animal for one day, what would you be? What would you do all day?” The students brainstormed ideas by creating a list of different animals and what each of those animals would do on a typical day. On Tuesday, each child chose an animal and wrote a draft of his or her story. On Wednesday, Mr. Johnson asked the children to revise by reading over their first drafts and instructing them to add five more details. He showed them how to draw arrows to blank spaces on the paper to add words or sentences. On Thursday, Mr. Johnson returned the children's stories for editing. Each child checked the spelling, capitalization, and punctuation in his or her draft and made corrections. On Friday, the children copied their final drafts neatly onto clean

paper and turned them in to Mr. Johnson. He graded the stories over the weekend and returned the papers on Monday.

In the classroom next door, Ms. Turner began writing time on Monday by telling the children they would be writing memoirs. Because the class had read and discussed many memoirs in the previous two weeks, the children understood that they should write a personal story about an interesting or important experience in their lives. They brainstormed ideas by listing memories about fun things they had done, scary times they remembered, and moments they felt very happy or very sad. Once the children made their lists, Ms. Turner asked them to tell some of their stories to a partner. After 15 minutes of storytelling, she said, "Some of you told a story that your partner liked very much. If you think others would enjoy hearing your story, write it down so you can share it with the class." Some children began writing and others continued telling their stories to different friends in the class.

On Tuesday, Ms. Turner encouraged the children to choose another memory from their list and write about it. Some children wrote new stories, others read their drafts to a friend, and some began revising. While the children worked, Ms. Turner talked to individual students, reading their drafts and showing them how to make changes. She showed Marissa how to add describing words and showed Paul how to write dialogue. She also taught a short "mini-lesson" to the whole class about how to add details that would help readers visualize the story's action. At the end of writing time, two or three children volunteered to read their stories aloud to the class. The audience asked questions and offered suggestions for revising the stories.

Writing time continued this way for ten days. Children wrote, revised, and shared their work, and they received feedback from friends and from Ms. Turner. Some children wrote and revised several stories, while some wrote only one or two. Each day Ms. Turner taught a mini-lesson about how to write a good memoir and met with children for writing conferences. After two weeks, she invited students to choose one story that they wanted to publish. Using speech-to-text software, the children entered their stories into a word processing document and began to edit. Ms. Turner taught them to use spellcheck, and they edited their own and others' work. During writing conferences, she taught some to capitalize the beginning of sentences and showed others how to use quotation marks. After editing was complete, Ms. Turner printed the stories and bound them together into a class book. Each child read his or her published story to the class, and the school librarian put the book in the library so other students could read it.

Down the hall, in Ms. Harrison's classroom, writing time on Monday began with the teacher announcing, "It's time to write." The children enthusiastically scattered around the room, grabbing pencils and notebooks. For the next 25 minutes, they wrote in their journals and talked to one another. Ms. Harrison allowed them to choose their own topics and write any type of text, but most children wrote stories about characters from their favorite movies and television programs. Some wrote an entire story, others wrote a sentence or two, and a few drew pictures without writing any words. Ms. Harrison sat at her desk while the children worked and read anything that a child brought to her. "Great job!" she said to each one. Once a month, she collected the children's journals and put a smiley face at the top of each page.

Although each of these teachers used a "process writing" approach, many differences existed in their instruction. In Mr. Johnson's room, the teacher assigned the writing topic, and everyone moved through the writing process together: brainstorming on Monday, drafting on Tuesday, revising on Wednesday, and editing on Thursday. Students wrote alone and only the teacher read their work. In Ms. Turner's class, children chose their own topics, moved through the process at their own pace, got feedback from peers and the teacher, and shared their writing with classmates. They also received both individual and group instruction from the teacher. In Ms. Harrison's class,

the students chose their own topics and moved through the writing process at their own pace, but they received no direct instruction from the teacher.

People sometimes wonder why these different ways of teaching are all called “process writing instruction.” This happens because teachers, and sometimes researchers, tend to label any approach in which children draft, revise, and/or edit as “process writing.” Research shows that teachers who use process writing instruction implement it in different ways (Troia, Lin, Cohen, & Monroe, 2011). As a result, the term “process writing” means many different things.

Evaluating the benefits of process writing instruction is challenging for two reasons. First, few *high quality* experimental studies² have directly examined this approach (Pritchard & Honeycutt, 2006). As a result, causal evidence about its effectiveness is limited. Second, because teachers implement process writing differently, it is difficult to judge this approach holistically. Consider the three classrooms described above. If a researcher set out to study process writing, which of the classes would he or she include? The instruction in one classroom might be much more effective than the instruction in the others, yet each is considered to be “process writing.” Perhaps a more important question than “Is process writing effective?” is the question, “What specific activities within process writing instruction lead to the best learning outcomes for children? However, much more research is needed to answer this question (McQuitty, 2014).

Despite some of the difficulties of studying process writing, some general conclusions about the effectiveness of this approach can be drawn from selected studies that have been done. A meta-analysis³ of 29 individual studies indicates that process writing is moderately effective at teaching children to write, though it is less effective with students who have writing disabilities than with students who are average or high achieving writers (Graham & Sandmel, 2011). The meta-analysis included only studies that occurred in classrooms with similar types of process writing instruction. The instruction in each classroom had these features: 1) extended opportunities for writing; 2) writing for real audiences and purposes; 3) emphasis on the cyclical nature of writing, including planning, translating, and revising; 4) student ownership of written compositions; 5) interactions around writing between peers as well as teacher and students; 6) a supportive writing environment; and 7) students’ self-reflection and evaluation of their writing and the writing process. So, we can conclude that process writing instruction with these seven features is moderately effective for average and high achieving writers but only minimally effective for struggling writers. However, if teachers implement process writing instruction with other features, those approaches might be more or less effective for these groups of children.

While more research is needed about the specific features that make process writing instruction effective, some educators have critiqued the approach. For example, Lisa Delpit (2006) has argued that in some classrooms (like Mr. Johnson’s and Ms. Harrison’s), the focus on process means there is no instruction about the writing product. This creates difficulties for students who do not already know the characteristics of good writing. For instance, stories usually progress in chronological order, while informational reports are organized around topics and subtopics. Children who have read many stories and informational books will know these organizational structures, but those with few reading opportunities may not. Because some students may not have access to as many books as their classmates, they may lack knowledge of how stories and reports are organized. If their teacher only teaches the writing process and ignores instruction about how the text should be organized, certain children will be at a disadvantage.

Process writing approaches are relatively popular in elementary classrooms and probably offer some benefits. Writing, by its very nature, is a process, so teaching children how to engage in that process makes sense; however, teachers must carefully consider the specific practices they include in their process writing instruction. Research evidence does support several particular practices that teachers should implement as part of a process approach (Pritchard & Honeycutt, 2007). First, they

must show students specific ways to improve their writing. For example, they can demonstrate how to add details to a story and provide time for children to add details to their own stories. This explicit instruction about how to create a quality text helps students more than simply telling them to draft, revise, and edit. It also answers Delpit's (2006) concern that some children will not know the features of good writing or how to produce it.

Second, children can benefit from interacting with peers during the writing process. They can learn from one another and help each other improve their writing. However, students do not automatically know how to help their peers, so teachers must show them how to give meaningful feedback. One effective practice is to give children criteria for responding to peers' writing (Pritchard & Honeycutt, 2007). Some teachers give students a protocol that outlines how to engage in peer response (see Figure 1). When children receive specific instruction about how to give feedback, they are better able to help one another.

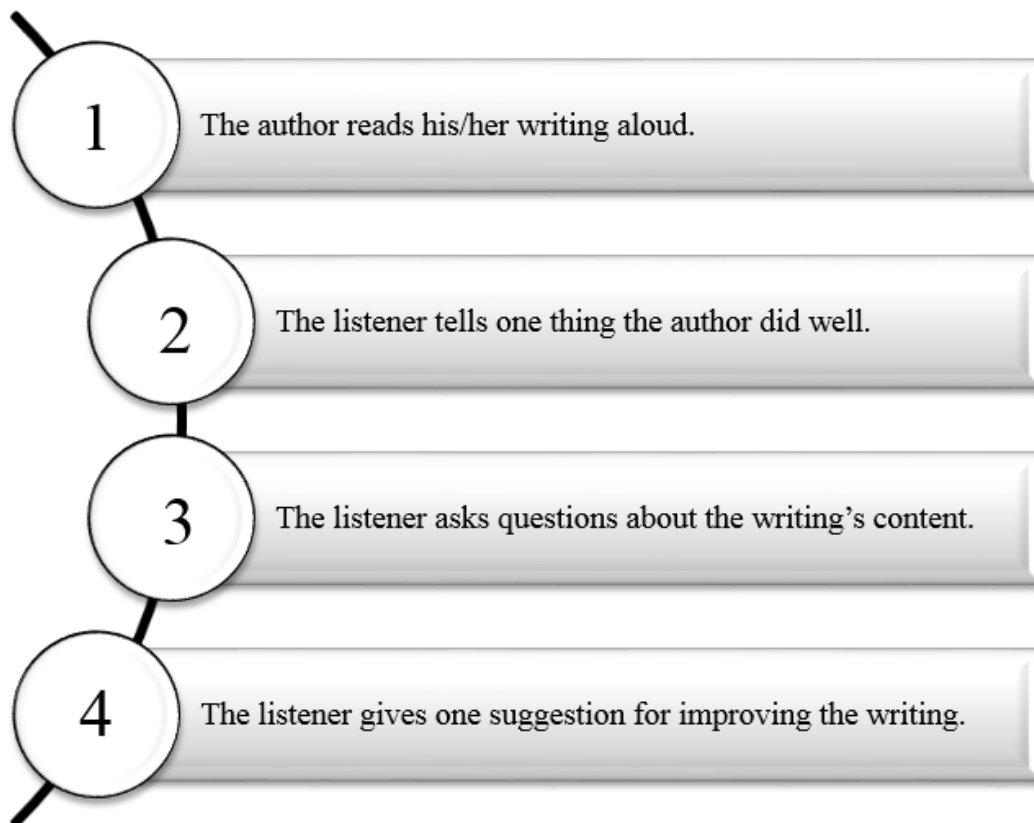


Figure 1. How to engage in peer response (Pritchard & Honeycutt, 2007).

Finally, there is some evidence that children should engage in the writing process flexibly rather than rigidly (see McQuitty, 2014 for a review). Some children may need more time to write their first drafts, while others may need more time for revision. Writing conferences, in which teachers read over children's drafts with them and provide feedback, also allow for flexibility. The teacher can provide individualized instruction in writing conferences, such as showing one child how to organize a paragraph logically and showing another how write topic sentences. Maintaining a flexible approach to process writing allows teachers to meet each child's specific instructional needs.

Genre Approaches

Although process writing provided a much needed response to ineffective, decontextualized language activities, the focus on process sometimes meant teachers ignored the quality of the writing itself (Baines, Baines, Stanley, & Kunkel, 1999). In some classrooms, children drafted, revised, edited, and shared their work, but their writing never improved. Particularly troubling was the fact that some children—usually white, middle class English speakers—seemed to excel in process writing classrooms while others—usually those from historically marginalized groups—did not. This fact led genre theorists to critique process writing and offer genre approaches as an alternative.

Genre approaches to writing instruction focus on how to write different types of texts. The notion of genre is grounded in the idea that writing is situational, so what counts as “good” writing depends on the context, purpose, and audience. For example, texting a friend and composing an essay are two very different writing situations. A “good” text message communicates ideas informally and efficiently, and background information is not needed because the author and reader share common knowledge and experiences. A text which states, “Ok meet you at 10” suffices. A good essay, however, has very different characteristics than a text message. An essay author must use a formal tone, fully explain all ideas, provide examples, and use complete sentences. Thus, the form of the writing is tied to the situation in which it occurs.

Teachers who use genre approaches teach about different writing situations and the forms required in each one. Instruction usually begins with children reading and analyzing a genre (Dean, 2008). In a unit about informational texts, the teacher will read many informational books aloud to the class and ask the children to read informational books on their own or in small groups. After reading, they discuss questions such as, “What’s the purpose of informational texts? When do authors write them? When do readers read them? What do readers expect when reading this genre? What are the features common to informational writing?” Once children understand the purposes and features of the genre of informational books, they would then begin to write their own.

Genre approaches answer critiques of process writing by emphasizing the text and explicitly teaching the features of different text types. However, because teachers often integrate genre instruction with process writing or strategy approaches (described below), it is difficult to measure the effectiveness of genre instruction by itself. Research does show that children need repeated exposure to a variety of genres (Donovan & Smolkin, 2006), so it seems plausible that genre instruction would benefit students. However, we currently have no confirmation that genre instruction alone improves children’s writing.

Genre approaches may become more common in elementary schools because the *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* (CCSS; National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010) for grades kindergarten through five are organized around three types of texts children should learn: narrative, informational, and persuasive. Therefore, the CCSS support a genre approach to teaching writing. As genre instruction becomes more popular, though, there is concern that teachers will focus too much on the forms and features of the different genres rather than how genres are situational (Dean, 2008). For example, a teacher might *only* teach that persuasive texts must state an opinion, give reasons for the opinion, and group the ideas logically (NGA & CCSSO, 2010). While it is important children know these features, it is equally important that they understand why people write persuasive texts, how the text features help authors create an effective argument, and how authors might need to vary the form of their argument to persuade different audiences. Thus, while genre approaches hold potential as effective ways to teach writing, it is currently unclear the best way to implement them. More research is needed to provide further evidence about how teachers should use genre instruction in their classrooms.

Strategy Approaches

Strategy approaches to writing instruction teach children the planning, drafting, and revision strategies used by skilled writers. These strategies are specific steps that guide students through each part of the writing process. For example, children might learn the planning strategy POW (Harris, Graham, & Mason, 2006): *Pick* my ideas (decide what to write about), *Organize* my notes (organize ideas into a writing plan), and *Write* and say more (continue to modify the plan while writing). The teacher would teach this strategy through a series of steps: 1) develop the background knowledge students need to apply the strategy; 2) discuss the strategy and how it will improve students' writing; 3) demonstrate the thinking processes used while implementing the strategy; 4) provide support as students use the strategy, such as working together with a partner; and 5) have students use the strategy independently.

Strategy instruction typically incorporates elements of both process writing and genre instruction. After learning the POW strategy, children learn other, genre-specific strategies for planning and drafting. When learning about persuasive writing, they learn TREE: *Tell* what you believe (state topic sentence), provide three or more *Reasons* (Why do I believe this?), *End* it (wrap it up right), and *Examine* (Do I have all the parts?). This strategy teaches the features of persuasive writing and guides students through planning, drafting, and evaluating their texts. After completing their drafts, they might learn the SCAN revision strategy (Harris & Graham, 1996): Scan each sentence. Does it make *Sense*? Is it *Connected* to your belief? Can you *Add* more? *Note* errors. Using POW, TREE, and SCAN together guides students through the process of writing a persuasive piece and directs them to include features of the persuasive genre.

Strategy instruction is a structured, systematic, explicit approach to teach writing. Teachers thoroughly explain the steps of the writing process and directly demonstrate both the thinking and the actions required to implement each step. Children practice each strategy, first with teacher and peer support and then on their own, until they have mastered it. Thus, while strategy instruction teaches the writing process and genre features, it is more systematic, explicit, and mastery-oriented than either process writing or other genre approaches. These features also seem to make it more effective. Numerous experimental studies have shown strategy instruction to be more effective than other types of writing instruction (Graham, 2006). However, strategy instruction is easily broken down into steps, which means that it is easier to research than other approaches. This may be one reason why more experimental studies about strategy instruction have accumulated compared to research on other ways of teaching writing.

Despite the strong evidence that strategy instruction helps children learn to write well, it is not widely used in elementary classrooms. This reality may be because teachers view it as formulaic or because it is more teacher-centered (rather than student-centered) than other approaches. Of course, teachers who use strategy instruction implement it in different ways. For instance, some teachers use IMSCI (Read, Landon-Hays, & Martin-Rivas, 2014), a somewhat less directed method of teaching strategies. This approach begins with *Inquiry* in which the teacher and children read various examples of a genre together and create a chart of the genre's characteristics. This inquiry is more consistent with other genre approaches than with models of strategy instruction in which the teacher directly describes and explains the genre features. However, the next step of IMSCI, *Model*, involves explicit instruction. The teacher directly demonstrates the thinking and actions required to plan, draft, and revise. The final steps—*Shared* writing, *Collaborative* writing, and *Independent* writing—are also similar to other strategy approaches in which students first work closely with peers and the teacher before writing independently. However, IMSCI is less mastery-oriented and somewhat less teacher-directed than other strategy instruction approaches.

Because the level of explicitness and teacher direction can vary depending on how strategy instruction is implemented, the question for teachers is, *Just how direct and explicit must strategy instruction be in order to be effective?* Researchers currently have no clear answer to this question. Studies do indicate that more explicit instruction particularly benefits struggling writers (Graham, 2006), but some educators think that teacher-directed approaches lead to shallower learning than approaches in which students take a more active role. Perhaps the best advice for teachers is to integrate strategy instruction with less explicit process writing methods (Danoff, Harris, & Graham, 1993). Such integration might offer the benefits of both explicit instruction and student-centered approaches to learning.

Multimodal Writing Approaches

Multimodal approaches to writing instruction acknowledge that people in the 21st century write differently than in the past. In addition to composing traditional, linear, paper-based texts, we also—perhaps more often—compose digitally. Writing digitally is not just a matter of typing on the computer rather than writing on paper. Digital texts use many different modes to communicate, and authors can develop proficiency in composing each one. Consider a typical webpage. In addition to written words, it may also contain photographs, artwork, audio, video, and text boxes that allow readers to post their own ideas. Designing and coordinating these various elements requires different skills than writing a words-only story.

Digital writing also links texts differently than traditional writing. Many traditional stories are linear; the author expects readers to proceed from the beginning to the end rather than jump forward and backward through the pages. In contrast, think about how people read digital texts. A typical sequence might be: Read half of the home page, click on a video link, watch half the video, click back to the home page, click on a hyperlink, read the first two sentences of the new page, then click on another hyperlink to yet another page. The options for reading a website are endless compared to the options for reading a bound book. As a result, authors of digital texts that include hyperlinks create a set of pages that can be read in almost any order.

The word “design” (Cope & Kalantzis, 2009) is often used to describe digital composing because many elements must be considered beyond the written words. Unlike traditional books, there are many options for page size and orientation, font style and size, layout of elements on the page, use of white space, and modes of communication (music, video, pictures, written words). The author of a digital text employs writing, graphic design, and possibly even musical, movie making, and visual art skills to design the text. Furthermore, because digital texts can be interactive, authors must also consider if and how they will provide opportunities for readers to make comments, participate in polls or surveys, or otherwise add to the text.

Although digital, multimodal writing is prevalent in our everyday lives, many elementary students continue to compose traditional pencil-and-paper texts in school. This may occur because the technology needed to write digital texts is too expensive or because the curriculum focuses on traditional paper-based writing. Still, some teachers are providing opportunities for children to combine traditional and digital writing. For example, Ms. Bogard’s third graders composed digital stories (Bogard & McMackin, 2012). They created graphic organizers on paper that depicted the story events and used the organizers to tell their stories aloud and audio record them. Then, with a partner, they listened to the recordings and received feedback and suggestions. Based on the feedback, each child created a storyboard on paper by drawing the pictures that would appear in the story and the narration that would accompany each image. They also planned how to create the images: take photographs, draw and scan to the computer, create video clips, or create still images using software. Finally, they put all of the elements together—images and audio recorded narration—and used software to create their digital stories.

While digital texts are the most likely types of multimodal writing, some teachers have encouraged children to create multimodal texts that are paper-based. For example, while writing memoir stories, children in a fourth grade class (Bomer, Zoch, David, & Ok, 2010) created books that contained pop-ups, glued-in photographs, and objects such as ribbons and stickers. Some students made their books interactive by concealing some of the content with sticky notes and instructing readers to “lift here.” Others attached notecards to the book so readers could write back. All the children incorporated three-dimensional elements such as handmade cardboard boxes filled with confetti, fold out maps, or a packet of sequentially numbered cards that told part of the story. Thus, multimodal writing does not require digital tools.

Because schools have only recently begun to include digital and multimodal writing in their curricula, only a few studies have examined this approach. Qualitative research, such as that conducted in the classrooms described above, shows that elementary children are capable of producing multimodal texts. However, because multimodal writing requires writers to create and coordinate different media, teachers may need to provide a high level of support to ensure children’s success. For example, Ms. Bogard (described above) engaged her students in two cycles of planning and revision for their digital stories. First, they created a graphic organizer of the story events, told the story orally and listened to their recording of it, and received feedback from peers. This allowed them to compose and revise the content, which ensured that the story made sense, contained important details, and followed a logical sequence. They then created storyboards that allowed them to plan every image and write the words that would accompany each image. Each step of the process was needed to ensure the children could coordinate the multiple visual and audio elements of their digital stories. Simply asking children to write multimodally, without providing a process to support their writing, would likely be unsuccessful.

Summary

Many different approaches to writing instruction have been used in elementary classrooms. Some approaches, such as short, structured handwriting lessons and strategy instruction, have a strong research base to support them. Other approaches, like penmanship and rules-based instruction are ineffective in improving children’s writing skills. Many approaches, including teaching grammar in context, process writing, teaching genre, and multimodal writing, are promising practices that need more research to determine the best ways to implement them. Teachers commonly do, and probably should, combine the best elements of each approach in order to provide the most effective instruction for their students. They must also seek out newly published research on writing instruction so they can continue to make informed decisions about the best ways to teach.

Questions and Activities

1. What are the different approaches to writing instruction? Describe each approach and explain what the research says about its effectiveness.
2. Based on the research evidence, how would you design effective writing instruction for elementary children? Describe the elements you would include and explain why you would include them.
3. Describe the approaches to writing instruction you experienced as a student. How helpful did you find each approach in supporting and developing your writing skills? Given what you now know about writing instruction, what would suggest that your teachers do differently? Explain your proposed changes and why you suggested them.
4. Observe writing instruction in an elementary classroom or view one of the videos of

writing instruction available at <http://www.insidewritingworkshop.org/classroom>. Analyze the approaches the teacher incorporates into his or her instruction. How did the children respond to the different parts of the instruction? Explain how effective the instruction seemed and why you evaluated that way.

Web Resources

- Components of Effective Writing Instruction: http://www.ldonline.org/spearswerling/Components_of_Effective_Writing_Instruction
- Every Child a Reader and Writer: <http://www.insidewritingworkshop.org>
- National Writing Project: <http://www.nwp.org>
- Project WRITE: <http://kc.vanderbilt.edu/projectwrite/>
- Videos about writing instruction: <https://www.learner.org/resources/series205.html>

References

- Baines, L., Baines, C., Stanley, G. K., & Kunkel, A. (1999). Losing product in the process. *English Journal*, 88, 67–72. doi:10.2307/821780
- Bogard, J. M., & McMackin, M. C. (2012). Combining traditional and new literacies in a 21st-century writing workshop. *The Reading Teacher*, 65, 313–323. doi:10.1002/TRTR.01048
- Bomer, R., Zoch, M. P., David, A. D., & Ok, H. (2010). New literacies in the material world. *Language Arts*, 88, 9–20.
- Christensen, C. A. (2009). The critical role handwriting plays in the ability to produce high-quality written text. In R. Beard, D. Myhill, J. Riley & M. Nystrand (Eds.), *The SAGE handbook of writing development* (pp. 284–299). Thousand Oaks, CA: SAGE.
- Cope, B., & Kalantzis, M. (2009). “Multiliteracies”: New literacies, new learning. *Pedagogies: An International Journal*, 4, 164–195. doi:10.1080/15544800903076044
- Cotner, E. (1926). The status of technical grammar in the elementary school. *The Elementary School Journal*, 26, 524–530. doi:10.1086/455935
- Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology*, 100, 907–919. doi:10.1037/a0012656
- Danoff, B., Harris, K. R., & Graham, S. (1993). Incorporating strategy instruction within the writing process in the regular classroom: Effects on the writing of students with and without learning disabilities. *Journal of Reading Behavior*, 25, 295–322. doi:10.1080/10862969009547819
- Dean, D. (2008). *Genre theory: Teaching, writing, and being*. Urbana, IL: National Council of Teachers of English.
- Delpit, L. (2006). *Other people’s children: Cultural conflict in the classroom*. New York, NY: The New Press.
- Donovan, C. A., & Smolkin, L. B. (2006). Children’s understanding of genre and writing development. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 131–143). New York, NY: Guilford Press.
- Emig, J. (1971). *The composing process of twelfth graders*. Urbana, IL: National Council of Teachers of English.
- Gilbert, J., & Graham, S. (2010). Teaching writing to elementary students in grades 4–6: A national survey. *The Elementary School Journal*, 110, 494–518. doi:10.1086/651193
- Graham, S. (2006). Strategy instruction and the teaching of writing: A meta-analysis. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 187–207). New York, NY: Guilford Press.

- Graham, S., & Sandmel, K. (2011). The process writing approach: A meta-analysis. *Journal of Educational Research, 104*, 396-407. doi:10.1080/00220671.2010.488703
- Harris, K. R., & Graham, S. (1996). *Making the writing process work: Strategies for composition and self-regulation*. Brookline, MA: Brookline Books.
- Harris, K. R., Graham, S., & Mason, L. H. (2006). Improving the writing, knowledge, and motivation of struggling young writers: Effects of self-regulated strategy development with and without peer support. *American Educational Research Journal, 43*, 295-340. doi:10.3102/00028312043002295
- Hawkins, L. K., & Razali, A. B. (2012). A tale of 3 P's—Penmanship, product, and process: 100 years of elementary writing instruction. *Language Arts, 89*, 305-317.
- Hayes, J. R., & Flower, L. S. (1980). Identifying the organization of writing processes. In L. W. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Erlbaum.
- Jones, S., Myhill, D., & Bailey, T. (2013). Grammar for writing? An investigation of the effects of contextualised grammar teaching on students' writing. *Reading and Writing, 26*, 1241-1263. doi:10.1007/s11145-012-9416-1
- McQuitty, V. (2014). Process-oriented writing instruction in elementary classrooms: Evidence of effective practices from the research literature. *Writing and Pedagogy, 6*, 467-495. doi:10.1558/wap.v6i3.467
- Murray, D. M. (1968). *A writer teaches writing: A practical method of teaching composition*. New York, NY: Houghton Mifflin.
- Myhill, D., & Watson, A. (2013). The role of grammar in the writing curriculum: A review of the literature. *Child Language Teaching and Theory, 30*, 41-62. doi:10.1177/0265659013514070
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects*. Washington, DC: Author. Retrieved from <http://www.corestandards.org/ELA-Literacy/>
- Pritchard, R. J., & Honeycutt, R. L. (2006). The process approach to writing instruction: Examining its effectiveness. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 275-290). New York, NY: Guilford Press.
- Pritchard, R. J., & Honeycutt, R. L. (2007). Best practices in implementing a process approach to teaching writing. In S. Graham, C. A. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (pp. 28-49). New York, NY: Guilford Press.
- Puranik, C. S., Al Otaiba, S. A., Sidler, J. F., & Greulich, L. (2014). Exploring the amount and type of writing instruction during language arts instruction in kindergarten classrooms. *Reading and Writing, 27*, 213-236. doi:10.1007/s11145-013-9441-8
- Read, S., Landon-Hays, M., & Martin-Rivas, A. (2014). Gradually releasing responsibility to students writing persuasive texts. *The Reading Teacher, 67*, 469-477. doi:10.1002/trtr.1239
- Saddler, B., Behforooz, B., & Asaro, K. (2008). The effects of sentence-combining instruction on the writing of fourth-grade students with writing difficulties. *The Journal of Special Education, 42*(2), 79-90. doi:10.1177/0022466907310371
- Saddler, B., & Graham, S. (2005). Effects of peer-assisted sentence-combining instruction on the writing performance of more and less skilled young writers. *Journal of Educational Psychology, 97*, 43-54. doi:10.1037/0022-0663.97.1.43
- Thornton, T. P. (1996). *Handwriting in America: A cultural history*. New Haven, CT: Yale University Press.

Troia, G., Lin, S. C., Cohen, S., & Monroe, B. W. (2011). A year in the writing workshop: Linking writing instruction practices and teachers' epistemologies and beliefs about writing instruction. *The Elementary School Journal*, *112*, 155–182. doi:10.1086/660688

Weaver, C. (1996). *Teaching grammar in context*. Portsmouth, NH: Heinemann.

Endnotes

- 1: For more detailed information about the role of fluency in proficient reading, see Chapter 3 by Murray in this textbook.
- 2: For information about using research to determine the effectiveness of an instructional approach, see Chapter 2 by Munger in this textbook.
- 3: For more information about meta-analysis, see Chapter 2 by Munger in this textbook.

7. Influence of the Digital Age on Children's Literature and Its Use in the Classroom

Joanna M. Robertson

Abstract

This chapter focuses on historical, social, and political influences on children's literature, including contemporary influences related to digital and technological advances. One key aspect of contemporary children's literature is the inclusion of multiple modes, or ways of communicating. This chapter discusses how teachers can utilize multimodal children's literature by inviting students to engage in arts-based responses that draw from visual and performing arts that are essential in teaching language arts skills and standards in elementary classrooms.

Learning Objectives

After reading this chapter, readers will be able to

1. think critically about children's literature, from the 17th century up to the digital age;
2. analyze ways children's books are culturally produced and how they influence readers;
3. explain the importance of incorporating literature and literature responses that allow for multiple ways of understanding and communicating, including through audio (sound and music), gesture and space (drama and dance), and visual messages (visual art);
4. discuss and plan arts-based responses to children's literature.

Introduction

This chapter explores historical, social, and political influences on children's literature, including recent trends related to digital and technological influences, such as incorporating multiple ways of communicating in response to multimedia messages prevalent in digital formats. Children's literature offers insight into the cultural, social, and political history of the place and time at which it was written. The beliefs, norms, and values of the specific historical time and place it was written are reflected in the content of the writing, the style, and genre of the writing, and the audience or market for which the text was written. Placing children's literature within these contexts allows readers to recognize and critique the cultural messages carried within children's books and consider the potential effect of those messages on readers. While differences in the children's literature from the past may be readily apparent, contemporary books also reflect cultural, social, and political worlds of today, making it equally important for educators to analyze the cultural messages contained within them as well.

After developing an understanding of contemporary children's literature, this chapter focuses on how teachers can take full advantage of children's books in the classroom. In particular, children's literature incorporating multiple forms of communication, such as audio or movement, can create broader opportunities for students to respond. These texts lend themselves especially well to arts-

based responses, which use visual art, music, drama, or dance activities to enhance understanding of texts. Giving students opportunities to *read* books that communicate in multiple ways, and then giving students opportunities to *respond* to those books using multiple ways of communicating, prepares them to communicate effectively in an ever-changing world.

History of Children's Literature

There have been many changes related to the publishing of literature for children since the beginning of the 17th century when the only books published for children were school books to teach them the alphabet and spelling, as well as morals, manners, and religion. At that time, the content of school books was influenced by Puritan beliefs that children were inclined to evil and needed to be taught morals. However, during this time, cheaply published books called chapbooks containing popular stories and tales also began to be produced and sold. Since these books did not contain strictly moral stories, they were often criticized for departing from Puritan beliefs (Gangi, 2004). Puritanical thinking eventually gave way to the Enlightenment ideals characterized by the philosophy of John Locke, which marked a shift in the view of children to that of a "blank slate" that could be written upon. During this time, moral tales and fables were still published, but more lighthearted books featuring word play, riddles, rhymes, and games began to appear in children's books as well. Children's books also borrowed stories originally written for adults, such as *Gulliver's Travels*, *Ivanhoe*, and *Robinson Crusoe*.

Before the 17th century, children were seen as small adults; however, during the Enlightenment and Romantic periods, childhood was viewed as a time of innocence that was distinct from adolescence (young adulthood) and adulthood (Avery & Kinnell, 1995). These changes in viewpoints created a new market for the writing and publishing of books specifically for children, who were seen as innocent and playful beings rather than mini-adults. During the 18th century, John Newbery, a writer of children's books, greatly influenced children's literature by starting the first publishing house dedicated to children's stories. He published his own stories, as well as the works of other children's book authors (Gangi, 2004). The idea of a publishing house just for children's stories reflected a shift in how society thought of children. During the 19th century, greater numbers of books were written for children's play and enjoyment, including the first picture book, which was written by Randolph Caldecott.¹

This early history of children's literature illustrates how societal changes influenced writers and book publishers to create and produce books specifically for children. As a market for children's literature had become firmly established in the 18th and 19th centuries, changes in children's literature in the 20th century were related to the content of books. For example, the period between World War I and World War II showed a proliferation of books depicting idealism and a pioneering spirit, such as the showcasing of small town life in the *Little House on the Prairie* series published between 1932 and 1943 by Laura Ingalls Wilder (1971). However, stories from this time period still included some serious and realistic writing, such as the simplicity and down-to-earth style of Margaret Wise Brown's work for young children, or the realities and hardships of life depicted in stories like *Strawberry Girl* by Lois Lenski (1945) that shared the struggles of a poor, working farm girl (Hunt, 1995).²

The emergence of more realistic stories preceded the onset of a major shift toward realism that accompanied the social and political revolution of the 1960s and 1970s. Between the 1930s and 1950s, writers became more willing to address topics related to societal issues and hardships, such as struggles associated with poverty; however, in the 1960s and 1970s, a flood of children's books emerged centering on realism. Authors such as Beverly Cleary, Judy Blume and Paul Zindel wrote about growing up, death, obesity, and other issues, which marked a shift in the boundaries of what was acceptable, and arguably, even necessary for children to understand. These earlier authors paved the way for the writing of M. E. Kerr, Cynthia Voigt, and Robert Cormier, who wrote about

homelessness, race, and sexuality. The realism of children's literature in the 1960s and 1970s represented a radical shift at that time, similar to many of the other shifts throughout history related to historical, political, and societal influences.

Recent Trends in Children's Literature

Recent decades have brought additional changes in the publishing of children's literature. The market for children's literature has been influenced by demand from parents, children with increased buying power, and a proliferation of serial writing to boost sales. In addition, there have been changes in the content of children's books related to gender, diversity, and social class (Ching, 2005; Englehardt, 1991; Gangi, 2004; Hunt, 1995; Larrick, 1965; Taxel, 1997; Zipes, 2001). While each of these areas is a worthwhile topic of study on its own, this chapter does not focus on them beyond recognizing their influence overall.

While the impact on children's literature due to cultural influences has been apparent throughout the decades, current trends center mostly on digital and technological advances in our society. Technological advances have exerted huge effects on printing and publishing capabilities. Beyond printing capabilities, authors and illustrators are writing to maintain the attention of children accustomed to the fast-paced sensory input of digital resources, such as computer and video games, smartphones, and tablet apps. Publishing companies have attempted to produce print texts that mimic or resemble digital texts in wording, style, type of images, or format. Some print texts even borrow concepts about page design from digital texts.

Exposure to digital and technological resources and global access to information have changed the boundaries, topics, and perspectives represented in books for children (Dresang, 1999, 2003). These changes in print texts include the use of non-linear plots that are organized not by a typical beginning, middle, and end, but tell the story out of order and/or lead readers in multiple directions through the text (e.g., *The End*, by David LaRochelle, 2007). Another change is the use of more interactive formats that invite readers to act or speak back to the book (e.g., *Press Here*, by Herve Tullet, 2011). Changes also include shifts in the perspective from which stories are told, such as authors highlighting normally "unheard" voices by sharing perspectives of groups or individuals not previously represented in children's literature or pushing boundaries by focusing on content or topics not previously represented.

As Anstey and Bull (2006) explained, contemporary books are products of changing times that require new understandings about text and are well suited for teaching and preparing students to be *multiliterate individuals*. Multiliterate individuals are socially responsible, informed citizens who are flexible and strategic as they engage in literacy practices with a variety of text types in a diverse world (Anstey & Bull, 2006). Some of the new understandings required by contemporary books include recognizing that texts represent messages through a variety of ways of communicating. Readers must not only understand written language but must also learn to understand visual language and other signs and symbols.

Technological resources have changed the way information is communicated, and teachers must prepare students to understand information from all types of texts, including digital texts. While this can be facilitated using digital technology, some schools, classrooms, or homes have limited access to technology. Fortunately, many flexible literacy skills can be developed through the use of print books that have the characteristics described above, such as mimicking digital texts in style and formatting, changing organizational patterns, exploring interactive formats, and representing messages in a variety of ways. The availability of print books that can teach students necessary digital skills may narrow a gap that could be perpetuated by the disparity between environments rich with technology and those that are lacking in technology.

Changes in contemporary children's books are not only related to digital and technological influences but also the influence of a cultural movement of the late 20th century known as *postmodernism*. A useful working definition of postmodernism by Wertheim (n.d.) presented below helps to highlight important cultural shifts during this period, including the importance of one's own personal reality in interpreting the world.

Postmodernism is largely a reaction to the assumed certainty of scientific, or objective, efforts to explain reality. In essence, it stems from a recognition that reality is not simply mirrored in human understanding of it, but rather, is constructed as the mind tries to understand its own particular and personal reality. For this reason, postmodernism is highly skeptical of explanations which claim to be valid for all groups, cultures, traditions, or races, and instead focuses on the relative truths of each person. In the postmodern understanding, interpretation is everything; reality only comes into being through our interpretations of what the world means to us individually. (para. 1)

Postmodernism has resulted in changes in all areas of the arts, including architecture, visual art, literature, and music. Children's literature scholars have highlighted important characteristics of children's books connected to postmodernism (Anstey & Bull, 2006; Pantaleo, 2004; Serafini, 2005). One of the most notable connections is when the illustrations in a picture book tell a completely different story than the words or show a different perspective or viewpoint. Postmodern influences are also seen in terms of how stories are told, including the portrayal of multiple versions of a story within the same book, telling the story through multiple narrators and perspectives, telling stories within stories, or blending genres, such as mixing fiction and nonfiction elements, or mixing science fiction and history. Authors also may refer to another text within a story or rely on the reader's understanding of another specific text for full comprehension. The visibility of the author and illustrator within the story is another common postmodern feature, such as when authors refer to themselves within a text, speak directly to readers, or when authors and illustrators share the processes used to create the book within the text itself (Anstey & Bull, 2006; Pantaleo, 2004; Serafini, 2005).

Noting the changes in children's literature related to digital and postmodern influences, teachers are tasked with determining how and when texts should be used in today's classrooms. In recent studies, when teachers used texts with postmodern characteristics, it was discovered that the students developed their ability to interpret visual images, their digital literacy skills, and their ability to think critically (Pantaleo, 2004). Each of these skills is important to prepare students for future encounters with both print and digital texts. Students may be interested in digital texts and other varieties of text types, but they may not have a full range of abilities to interpret all the messages contained in these texts. By including contemporary books in the curriculum, teachers can better prepare students for a wide range of experiences in the world.

Multimodal Texts in Children's Literature

It is easy to envision a classroom that relies on the use of a print textbook and resources that primarily use printed words and visual images to represent meaning. However, print resources are changing in ways that are reflective of the multiple ways, or modes, that are used to communicate within digital contexts. Recall from Chapter 1 that modes of communication encompass all forms of expression, including "Visual Meanings (images, page layouts, screen formats); Audio Meanings (music, sound effects); Gestural Meanings (body language, sensuality); Spatial Meanings (the meanings of environmental spaces, architectural spaces); and Multimodal Meanings" (New London Group, 1996, p. 80). Though children's literature, especially picture books, rely mainly on print and visual modes (i.e., words combined with pictures), there are growing numbers of children's books

that creatively incorporate audio, gestural, and spatial modes as well. Multimodal texts are capable of drawing on students' strengths and preparing them for a multimodal society where individuals communicate through audio, gestural, visual, spatial, and print resources, as well as various combinations of these modes.

Each mode has its own capacity to communicate, or potential to make meaning, which is called an affordance (Kress & Jewitt, 2003; Kress & Van Leeuwen, 2001). Basically, this means that each mode communicates the same idea in a different way than any other mode. For example, an individual may communicate a story about a cat by telling the story in words, moving around the room, using sounds, or acting out the story with no words or sounds. Each version might communicate a particular part of the story especially well, while another part may not be communicated as well using that mode. The idea that modes have different affordances, or potential to make meaning, suggests that some modes of communication are better suited for some tasks than others. When modes are integrated, their combination also contributes to an overall meaning that could not be achieved by the use of any one mode on its own. Even within a mode, the materials used or the format of the communicated message can contribute differently to the understanding of the message. For example, a written message carries different meaning if it is written in sand versus carved in stone (Kress & Van Leeuwen, 2001).

The meaning-making potential of a mode also depends on how a society or group of individuals values that particular mode or how that mode is used within that society in different situations and contexts (Kress & Jewitt, 2003). As individuals understand the potential usefulness of a mode of communication within the context of their culture, they can choose the modes that most appropriately express their message. Thinking back to the example of the cat story, not only does a particular mode communicate the story differently, the choice of a mode may be appropriate in some circumstances but not in others. For example, it would be more appropriate for a small child to act out the story while moving around the room and meowing than a college professor teaching an English class!

Discussions such as this related to how humans communicate and value various modes is grounded in a larger field known as social semiotics. Social semiotics essentially explains how humans make sense of the world and communicate with each other through all ways that are socially meaningful, such as by drawing, creating visuals, talking, making gestures, engaging in dance and movement, creating architecture, and singing and making music (Lemke, 1990). Additionally, as societies or cultural groups adapt over time, they place different value on various modes people use to make meaning. Schools are important in shaping the value placed on different modes in a society; their overemphasis on reading and written language systems marginalizes other valuable forms of expression and, likewise, students who have talents and abilities in these other forms (Eisner, 1991). Eisner explained that being able to understand messages communicated through multiple modes is central to three important educational aims, including increasing the variety and depth of meaning people make in their lives, developing cognitive potential, and providing educational equity in our schools.

When teachers and students begin to understand the potential of each mode, more options become available to understand and create meaning. Students make choices on a daily basis as far as the mode used to communicate, as well as the medium or format of a message. For example, students choose a medium when they decide to send an email or a text message, share a tweet, a picture, or a song, or create a video. The medium chosen often dictates the format of the message—a text might use shorthand or emoticons while an email would use full words. If they understand the potential of each of the modes, they can make choices to create and understand messages more fully. Authors and publishers of children's literature are also aware of these choices, and the literature they produce

is certainly influenced by the knowledge that students' communication preferences are both flexible and dynamic.

Teachers can facilitate learning in the classroom that allows all of the above to be possible, such as students having knowledge of modes to make the best choices to express their messages, students with talents and abilities in areas beyond print and linguistic forms to have a valued mode to express themselves in the classroom, and students having the ability to fully understand the messages that are communicated through various modes and their combinations throughout society. An understanding of how modes work together in texts is thus necessary for those preparing to enter the teaching profession. Children's book authors and illustrators are able to offer more multimodal experiences for readers that extend beyond the combination of print and visual modes to include audio, gestural, and spatial modes. As multimodal texts are viewed, readers make meaning by experiencing integrated and cohesive texts that draw on the potential of multiple modes of meaning. Teachers must therefore understand how modes work together within texts in order to prepare students to understand and make meaning with a wider variety of texts and communicate through a wider variety of modes.

Audio Mode in Children's Literature Texts

Print and visual modes are obvious aspects of children's literature texts and areas that teachers and students have traditionally spent time studying; however, children's literature is beginning to utilize other modes of meaning, as well, such as audio, gesture, and spatial modes. In order to understand how these less "obvious" modes work in children's literature texts, a closer look at the audio mode is presented as an example. The audio mode, which includes both sound and music, is present in many aspects of daily life, including use in film and television, as well as content accessed on iPods, tablets, smartphones, and at popular websites, such as YouTube. This proliferation of sound and music in daily life heightens the importance of teaching students how to use the audio mode to understand and communicate messages.

There are different ways in which picture books might invite the possibility of the reader to make meaning using the audio mode. For the purposes of this discussion, the audio mode is not referring to books that talk about music or sound, as these do not necessarily make meaning using the audio mode. Nor is it referring to audio books (e.g. a CD or audio file in which someone is reading the book out loud) which consist of spoken text or words that are primarily a linguistic meaning. Rather, this discussion focuses on the ways that books can represent meaning *through* the audio mode using visual and linguistic information, or using other symbolic representations that allow for the possibility of the reader to use the audio mode to make meaning and comprehend the message. For example, if, based on the information represented in a piece of text, a reader makes a sound or sings a song to make meaning of that information, the audio mode is being used to communicate. Kress (2000) explained that to determine which mode is being used to communicate a message, one can think about the sense that is used to make meaning of represented information. Figure 1 provides an example of how a linguistic (print) message, a visual message, and an audio message might appear in a children's book.

Children's picture books represent audio meaning in different ways. The following examples show how particular authors have not only represented audio meanings but also how picture books can invite communication through multiple modes, even when seemingly only linguistic and visual modes are presented. This same approach can then be used when interpreting any piece of children's literature to understand if readers are invited to make meaning through multiple modes of representation. One way authors may include audio meanings is by incorporating song lyrics into the story. The song lyrics can be read as a strictly print text; however, if the words are sung as the book is read, this is an example of an audio representation. Other texts incorporate sound words,

Representing Meaning Though Different Modes

Linguistic mode: “dog” or “barking dog”

Visual mode:



Audio mode:

“Arf.”

Figure 1. Representation of how the linguistic, visual, and audio modes convey a similar idea in three distinct ways.

also known as onomatopoeia (e.g., *pow*), into texts, with their meaning dependent on the print text surrounding the sound word. In *Max Found Two Sticks* by Brian Pinkney (1994), the sounds Max hears and plays are represented through sound words within the text. For example, “Max responded by patting the bucket, *Tap-tap-tap. Tippy-tip...tat-tat*. He created the rhythm of the light rain falling against the front windows” (Pinkney, 1994). The sound words are integrated within the text and add a layer of meaning to the story that would not be present if these sound words were absent.

In other texts, sound words extend the meaning of the text beyond what the print text accomplishes on its own, such as in *This Jazz Man* by Karen Erhardt (2006) and *What Charlie Heard* by Mordicai Gerstein (2002). In *What Charlie Heard*, sound words are used as an integral aspect of the illustrations to show the myriad sounds that Charlie hears. In this story, sound words are written in different fonts and sizes as part of the illustrations showing the sound made by each object, animal, or person represented in the illustration. The sound words in this text become part of the illustration and represent the sounds themselves.

Other children’s picture books use the audio mode by including musical notation. For example, *The Wolf Who Loved Music*, by Christopher Gallaz and Marshall Arisman (2003), adds a staff (i.e., the set of five lines on which musical notes are printed) starting on the second page of the text as a light gray heading. On each successive page, additional musical symbols and then notes are added to this staff. The printed music, if decoded, plays the main theme to Sergei Prokofiev’s *Peter and the Wolf*. Using the musical text along with the printed text provides an additional way to make meaning, offering information which is not included in any other way in the print or visual information of the text.

Some texts use a more abstract notation rather than real musical notation. An example of abstract notation appears in *Mysterious Thelonius* by Chris Raschka (1997). This book represents the notes of a song through the placement of words on the page. On the book jacket, a color scale shows that each color represents a different note in the musical scale. Throughout the text, the words are written in different colors and heights related to that scale, thus effectively creating a melody through the placement of the words on the page.

Another way picture books can represent the audio mode is by including an external audio CD or a link to an audio file. In *The Yellow Umbrella* by Jae Soo Liu (2002), the music for this text was composed solely for the purpose of accompanying the illustrations. The music can be listened to in two different ways. There is a one-track short version that has about 20 to 30 seconds of music for each page. There is also a long version which provides 1 to 2 minutes of music for each page,

each on a different track. Without the music, a reader might only pause for a moment on the page to consider the small amount of action they see. With the musical accompaniment, the mood and spirit of each page changes. In a wordless picture book, the reader typically uses their own words to form a story related to what is happening in the pictures. The music adds more meaning than the pictures can convey alone to help the reader construct this story. All of the above examples demonstrate some of the ways authors and publishers work together to communicate a wider range of messages, using not just print and visual modes but the audio mode as well.

Connecting Learning Standards to Arts-Based Responses to Literature

Children's literature can be used by teachers as instructional materials to meet a variety of educational goals and objectives. Using children's literature that includes multiple modes of communication offers more opportunities to invite students to respond using arts-based forms, such as visual art, drama, music, and dance. Students may be more encouraged to respond to literature if teachers use more familiar terms, such as music, art or drawing, acting or drama, and dance or movement rather than discussing modes, like gestural, spatial, or audio, as terms. Arts-based responses allow students to use all their senses as they make meaning. As an example, an arts-based response might be one in which students act out what they think might happen in a story, create a rhythmic pattern or tune to symbolize each character in a book, or move the same way as they believe characters felt or acted in given situations to help analyze a character's emotions and motivations. Multimodal books are not required tools for arts-based responses in that teachers can encourage or create arts-based response activities for any book, but when a text already utilizes audio, gesture, movement, or space in creative ways, it can offer students a model and set the stage for engaging in arts-based responses.

An argument can be made that incorporating arts-based responses is especially important for students who excel in other modes of communicating besides reading and writing. Nevertheless, in many of my discussions of arts-based responses with teachers, it often is revealed that they believe arts-based responses are fun extension activities but they may be pushed to the periphery in light of the increasing pressure of standards and testing. Yet, incorporating arts-based responses can help teach skills necessitated by the standards. To help ensure that teaching and learning are directed toward a meaningful outcome, teachers have purposes for using any strategy, practice, or lesson they teach, including the practice of incorporating arts-based responses. Teachers' purposes are aligned with their state's standards for student learning, including the *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* (CCSS; National Governors Association & Council of Chief State School Officers [NGA & CCSSO], 2010), which have been adopted by most states across the United States.

I asked pre-service and practicing teachers about their purposes for having students respond to literature. Table 1 shows a list generated from their responses, including helping students comprehend or interpret a text, connect to characters or events, and consider new events or situations. The right column of Table 1 shows how these purposes aligned with standards, such as CCSS Reading Standards for Literature K-5, CCSS Speaking and Listening Standards and *NYS P-12 Common Core Learning Standards* (NYSED, 2011).³ This alignment shows that asking students to respond to literature in the classroom can help teachers and students accomplish important learning goals.

Table 1. *Literature Response Activities Purposes and Standards*

Teachers' Purposes for Literature Response Activities	Standards
<ul style="list-style-type: none"> • Gauge students' comprehension of the literature • Give students a chance to ask questions, help students work out anything that is confusing, or advance students' understanding of the literature • See if students are able to communicate their ideas to others 	CCSS ELA-Literacy. RL. K.1-5.1 Key Ideas and Details. Asking and answering questions in kindergarten which develops into using details to make inferences at 5th grade
<ul style="list-style-type: none"> • Make sure students understand bigger ideas in the literature 	CCSS ELA-Literacy. RL. K.2-5.2 Key Ideas and Details. Retelling in Kindergarten which leads to determining themes and summarizing
<ul style="list-style-type: none"> • See if students can recognize plot details and events that affect the progression of the story • Help students see right/wrong, successful solutions to problems, different perspectives, consequences, or positive outcomes to actions • Help students become more empathic as they understand different characters' emotions and actions 	CCSS ELA-Literacy. RL. K.3-5.3 Key Ideas and Details. Identifying, describing, and ultimately comparing and contrasting characters, settings and events
<ul style="list-style-type: none"> • See how different students interpret the same story, and let them see and value those differences 	CCSS ELA-Literacy. SL.K.1-5.1. Comprehension and Collaboration. Participate and engage in collaborative discussions about grade level texts and topics
<ul style="list-style-type: none"> • Help students make connections to curriculum topics, their own lives, the world, other texts • See if students relate ideas in the story to other topics they have learned in class • Help students prepare for things that they have not experienced themselves 	(NYS) Responding to Literature 11. Recognize and make connections from literature to other texts, ideas, and cultural perspectives
<ul style="list-style-type: none"> • See if students enjoyed the stories 	(NYS) Responding to Literature 11a. Self-selecting texts based on personal preferences
<p><i>Teachers' Purposes and Links to Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects (CCSS; National Governors Association & Council of Chief State School Officers, 2010) and the NYS P-12 Common Core Learning Standards (NYS Department of Education, 2011).</i></p>	

Earlier in the chapter, purposes for asking students to respond to multimodal texts were established. These included giving students opportunities to make meaning of texts that draw on multiple modes of meaning and to understand the potential of each mode of communication in order to make choices that allow them to create and understand messages more fully. These two purposes align with the CCSS Reading Literature standard, Integration of Knowledge and Ideas regarding how illustrations, words, and, in later grades, multimedia elements in print, digital, and multimedia texts contribute to the overall effect of the text.

Siegel (2006) explained how translating information from one mode of communication into a different mode, called *transmediation*, generates new understandings of the information. Since each mode has a different potential to communicate, transmediation furthers students' meaning making because it requires them to think about content in different ways and is a clear benefit of arts-based responses. In addition, when teachers generated their lists of the purposes for responding to literature, there were a small number they listed that did not match with the standards, including promoting creativity, allowing students to think out of the box and explore their own thinking, fostering empathy, and giving students a chance to be actively engaged and gain ownership of learning. These purposes for literature response were important to teachers with respect to maintaining a positive and productive learning environment. Arts-based responses offer rich opportunities to fulfill many purposes such as those included in Table 1, while enhancing understanding of literature and creating lifelong learners.

The design of arts-based responses goes beyond thinking of a final product such as a cute craft to send home, to instead, thinking about the activity as part of a process that will allow students to engage with the content and literature. Because arts-based responses to children's literature are central to achieving teachers' purposes and align with state standards, the final section of this chapter will feature well-designed arts-based activities that can help students transmediate between modes and think about making meaning in new ways.

Examples of Arts-Based Responses

The visual and performing arts responses to children's literature featured in this section are offered as suggestions and to inspire new ideas. Each book and each class offer unique opportunities to create and innovate. As you consider the use of arts-based responses in your own classroom, envision each suggestion taking place with students and teachers exploring and experiencing the text and the activity together. Students are not professional actors, musicians, artists, or dancers, and yet they are fully capable of visual and performing arts responses. Likewise, teachers do not need to be professional artists or dancers either to effectively use arts-based responses with students. As pointed out by Berghoff (1998), these responses are not about teaching the disciplines of art or music in the language arts classroom but allowing learners to use their knowledge from these disciplines to learn in the language arts classroom. These ways of thinking and expression are familiar to young children, she explains. "From early childhood on, children make sense of the world through dramatic play, drawing, dancing, singing and other communicative forms" (p. 521). Teachers can foster an environment where these ways of thinking continue to be valued as students explore the world in ways that are familiar. Each example in the following section also includes a link to the standard(s) that the activity addresses as a reminder that offering arts-based responses accomplishes important curricular goals.

Music

Music responses explore how all elements of music and audio, including individual sounds, pitch (high or low), dynamics (loud and soft), rhythm, and tempo (speed) communicate with listeners.

Sound translation

The text of *This Jazz Man* by Karen Erhardt (2006) follows the familiar tune of "This Old Man," but the verse on each page introduces a different jazz performer. As part of the verse, there is a string of sound words that helps readers hear the sound of the instrument performed by that jazz player. There is also an extended sound word phrase incorporated into the illustration. For this lesson, read through the book as a class read aloud. Then reread the book and invite students to sing along with the reading using the tune to "This Old Man." Finally, use materials available in the classroom to translate the string of sound words back into sound (hands and feet, pencils, water bottles, books, etc.). Encourage students to be creative as they find materials to make the sound. Once a sound has

been chosen for each song verse, reread and sing the song one more time. Instead of speaking the sound words, replace them with the chosen sound to translate the sound words to actual sounds (Robertson, 2008). CCSS.ELA-LITERACY.RL.K.4-5.4

Hear your life

What Charlie Heard by Mordicai Gerstein (2002) is a picture book biography of the life of composer Charles Ives, who is known as a composer whose music was often misunderstood or regarded as difficult to listen to (recall that this book was discussed previously in reference to audio modes). Charles Ives heard all the sounds in his life as music, and his compositions are meant to portray this, however dissonant or cacophonous (i.e., disagreeable; not harmonious) his compositions ended up being. For example, one of his more famous pieces is a representation of two different marching bands playing two different pieces in different keys, marching from opposite directions, crossing in front of the listener, and then moving away. In this picture book biography, sound words are used as part of the illustrations in different colors and fonts next to the object, person, or animal from which the sound originates. The pages are full of sounds and colors, showing the sounds that permeated Charles Ives' life. First, share the book with students, guiding them as they interpret the messages communicated through multiple modes. Then, invite students to write and illustrate a scene from their life using the same style. Figure 2 shows how a class of students represented sounds in an illustration drawn from a personal memoir writing piece they were working on. In this classroom, when the teacher then asked students to go back and revise their memoir, the exploration into the sound and visual representation of their story allowed them to add much more robust sensory detail into their revisions (Robertson, 2008). CCSS.ELA-LITERACY.RL.K.7-5.7; CCSS.ELA-LITERACY.W.K.3-5.3



Figure 2. Student example of the illustration style in *What Charlie Heard* by Mordicai Gerstein.

Drama

Drama responses allow students to explore how elements such as body language, posture, gesture, voice, and inflection contribute to expressing and understanding meaning.

Color and emotions

The following activity allows students to explore the relationship between color and emotions and involves two children’s literature books: *My Many Colored Days* by Dr. Seuss (1996), and *The Way I Feel* by Janan Cain (2000). Both of these books relate emotions and moods to different colors. Start the lesson by reading each of the books in a large group format. For the remainder of the lesson, ask students to work within small groups. Provide each group with plenty of different colored pieces of paper. To start, ask one person in the group to act out an emotion for the other members, charade style. Other members of the group will then choose a piece of paper in a color they think represents the acted-out emotion. The group members will then share the emotion they believed was being acted out, as well as why they chose that particular color to represent it, and the actor can share if the group members guessed the emotion they were portraying. Repeat the steps in this activity so that each person in the group has an opportunity to act out an emotion or mood. Younger children still exploring ways to name their emotions can use this activity to further develop their understanding of emotions. Older children working on incorporating more descriptive words and explaining and portraying emotions in their writing can use this activity to add further dimensions to how they and others think about emotions and moods. This activity can be especially enlightening, since students may realize that though they think they are showing one emotion, others may perceive it differently. CCSS.ELA-LITERACY.RL.K.7-5.7

Sound and action story

The following activity invites students to think about the attributes of specific characters in a text. The idea was adapted from a suggestion by Gelineau (2012) to create “original sound stories” by determining sounds to match well-defined characters (p. 67). The following activity extends that idea by asking students to create a sound as well as an action for each character in a book. While this activity could be applied to many different texts, *The boy who cried ninja* by Alex Latimer (2011) is offered as a suggestion to learn how the process works. The book has a wide variety of diverse characters, including a Mom, Dad, Grampa, ninja, astronaut, giant squid, pirate, crocodile and monkey. First, read the book, *The boy who cried ninja*, aloud. Then, break the class into small groups and have the students decide on a sound and an accompanying action for each character. Each group will then practice reading through the book: every time a character is mentioned (or shown in a picture) they perform the action and make the sound for that character. After each group practices, they will perform their action and sound stories for the class while the teacher reads the story aloud. The process of selecting a sound and action that matches a character will deepen discussion of the characters, and performing the story for the class will extend that discussion to the larger group. For older students, this is a good book to introduce this activity, but then the process can be applied to books where the characters have more development. CCSS.ELA-LITERACY.RL.5.7

Dance and movement

Dance and movement responses explore how both dance or body movement can express messages and communicate with others.

Walk like a/an..

Every time students need to move around the room, make the most of these transitions by turning them into a response activity focusing on dance and movement. For example, as students move to get in line or to shift activities in the room, connect to a character in a class read-aloud by asking students to move as if they are feeling one or more of the emotions that character had experienced. This will help students identify with and understand the actions of the characters. CCSS.ELA-LITERACY.RL.K.3-5.3

Find your style (dance and music response)

Often in children’s literature, common themes or storylines are repeated. Start this lesson by creating a story map (WETA Public Broadcasting, 2015)—a graphic organizer that outlines the elements of story, such as setting, characters, plots and events, problems and solutions—for the following three stories: 1) *The Twelve Dancing Princesses*, a classic fairy tale with many adaptations (though the illustrations in Marianna Mayer’s [1989] and Ruth Sanderson’s [1990] versions are particularly beautiful), 2) *The Barn Dance* by Bill Martin Jr. and John Archambault (1986), and 3) *Brothers of the Knight* by Debbie Allen (2001). Each book follows a similar story line but has its own style, tone, and setting. Ask students to explore the illustrations, the language use, and the design of the books as they compare and contrast the three stories. Add a further dimension to the stories by pairing them with musical samples representing the three styles displayed in the books (a classical piece, such as Bach’s “Minuet in G”; an American folk song, such as “Turkey in the Straw”; and a current, popular, hip hop selection.) With music selected, let students dance to the styles in the books. Discuss or find examples of costumes, props, or musical instruments to explore the elements of tone, style and setting in each story. The decision making process as students choose the music, instruments, or dance moves that connect with the different styles represented in the books actively engages students in the process of transmediation, described earlier as a process of translating information from one mode to another and thus creating new understandings. CCSS.ELA-LITERACY.RL.K.3-5.3; CCSS.ELA-LITERACY.RL.K.7-5.7

Visual art

Visual arts responses explore how color, lines, shapes, drawing, painting, and all other elements of art communicate messages to the viewer.

Make a match

Illustrators are artists, and their work is based on traditions and styles in art. Share illustrations from a children’s picture book and compare them to a matching art style. For example, pair the illustrations in Marianna Mayer’s (1989) *Twelve Dancing Princesses* with Jean-Honore’ Fragonard’s *The Swing* (students may also be very excited to recognize this particular painting from Disney’s *Frozen*). Compare Picasso’s cubism artwork with the illustrations in D. B. Johnson’s (2002) *Henry Builds a Cabin* or the work of children’s book author David Wiesner with surrealism works of Salvador Dali or Vladimir Kush. Extend the activity by asking students go on an “art hunt” and make matches between picture book illustrations and pieces of artwork. For a challenge, ask students to create their own illustrations. Though some of the styles may seem detailed and difficult for children to replicate, they may still choose one of the harder styles to explore the process. Or suggest they work with an easier style, such as naïve artwork, characterized by a childlike nature and represented in picture books such as *The Bookshop Dog* by Cynthia Rylant (1996) or *Joseph Had a Little Overcoat* by Simms Taback (1999). Students can create illustrations to go with a story they are writing or related to an event in their life. After matching art and illustrations or illustrating using a certain style, have a discussion with students about why a style might be used with a certain book. Did the style help tell the story or set the mood? When they used the style themselves, how did it affect the overall message they were communicating? CCSS.ELA-LITERACY.RL.3.7

Pinhole view

Illustrators are becoming much more innovative in the creation of wordless picture books. The wordless picture book *Flashlight* by Lizi Boyd (2014) offers many opportunities for discovery. The illustrations show the character exiting a tent in the woods at night. Most of the page is black with grey line drawings to show the dim background. The character is holding a flashlight and there is a bright spot of the illustration on each page in the path of the flashlight. Small holes are cut out of each page giving a glimpse of what is to come or perhaps something missed on the page before,

further drawing visual attention to details in the book. Since exploring dark spaces may not be conducive to a classroom or school environment, teachers can extend the reading of this book by using the idea of the cut outs. Have students view the classroom, other areas in the school, or outdoor areas of the school grounds through a hole cut in a piece of paper. Have them sketch the new things to which this pinhole view of the world drew their attention. What do they see differently with different shaped holes? Do they see things they did not notice without the pinhole view? This artistic response helps students understand the effect and theme of the book and also helps give them a different perspective on their environment. CCSS.ELA-LITERACY.SL.K.5-5.5

Summary

This chapter began by establishing the historical, social, and political influences on children's literature beginning in the 17th century and leading to contemporary influences, including digital and technological advances, postmodernism, and the prevalence of multiple modes of communicating. The discussion then turned to how teachers can utilize multimodal texts in classrooms to teach the skills outlined in state standards and aligned with teachers' purposes. Arts-based responses using traditional and multimodal texts were described as a way for teachers to support all students to fulfill purposes for responding to literature, including those that may not have direct correlations to the standards but are still necessary for establishing a positive classroom learning environment. Examples of drama, music, dance and movement, and visual arts response activities were presented to specifically show how contemporary literature, including multimodal literature, can be used in classroom settings. Teachers are encouraged to explore multimodal children's literature and design meaningful arts-based response activities that will enhance the learning of every child in their classroom.

Questions and Activities

1. Find a book (maybe one you read as a child) that represents the time or place in history in which it was written. Find a contemporary book which represents the current time and place in history. Imagine you are looking at either book as an outsider to that time and place. What social, cultural, or political messages, either purposeful or inadvertent, are reflected in that piece of literature?
2. Browse the children's books at the local library and critically analyze the messages to find books that represent a new perspective or voice that is not usually heard, such as a story told from the perspective of a character from a diverse population or a unique representation of gender roles. What social, cultural, or political messages are reflected in that piece of literature?
3. With a partner or in a small group, communicate something about a particular topic using only gestures or movement, then using only sounds (not words), then only pictures, and then only words. Then try to communicate using a combination of these modes. Ask your audience to share their interpretations of each message.
4. Make a list of ways you communicate daily using different modes when you experience events such as hearing a siren, seeing traffic lights, seeing a friend, communicating with someone, and listening to Pandora. Based on this list, what are other modes that could be used to communicate in these events? Which seem most effective for you? Do you think that others would use all the same modes? Explain your thinking to others.
5. As proposed by this chapter, consider the variety of ways that authors may invite multimodal interpretations and locate a children's book that communicates using audio, gesture, or space in addition to print and visual modes. How might you use these books with students who have difficulty communicating through reading and writing?

6. Select texts and create arts-based response activities in each area (drama, music, dance, and visual art) designed to enhance understanding of the texts. Share your idea with two other classmates and determine the state standards that connect to the arts-based response activities each person designed.

References

- Anstey, M., & Bull, G. (2006). *Teaching and learning multiliteracies: Changing times, changing literacies*. Newark, DE: International Reading Association, Inc. and the Australian Literacy Educators' Association.
- Avery, G., & Kinnell, M. (1995). Morality and levity (1780–1820). In P. Hunt (Ed.), *Children's literature: An illustrated history* (pp. 46–76). New York, NY: Oxford University Press.
- Berghoff, B. (1998). Inquiry about learning and learners: Multiple sign systems and reading. *The Reading Teacher*, 51, 520–523.
- Ching, S. H. D. (2005). Multicultural children's literature as an instrument of power. *Language Arts*, 83(2), 128–136.
- Dresang, E. (1999). *Radical change: Books for youth in a digital age*. New York, NY: H.W. Wilson Company.
- Dresang, E. (2003). Controversial books and contemporary children. *Journal of Children's Literature*, 29(1), 20–31.
- Eisner, E. (1991). Rethinking literacy. *Educational Horizons*, 69, 120–128.
- Engelhardt, T. (1991, June). Reading may be harmful to your kids: In the nadirland of today's children's books. *Harper's Magazine*, 282, 55–62.
- Gangi, J. M. (2004). *Encountering children's literature: An arts approach*. Upper Saddle River, NJ: Pearson Education, Inc.
- Gelineau, R. P. (2012). *Integrating the arts across the elementary school curriculum*. Belmont, CA: Wadsworth/Thomson Learning.
- Hunt, P. (Ed.). (1995). *Children's literature: An illustrated history*. New York, NY: Oxford University Press.
- Kress, G. (2000). Multimodality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 182–202). New York, NY: Routledge.
- Kress, G., & Jewitt, C. (Eds.). (2003). *Multimodal literacy*. New York, NY: Peter Lang Publishing, Inc.
- Kress, G., & Van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary curriculum*. New York, NY: Oxford University Press.
- Larrick, N. (1965, September 11). The all-white world of children's books. *Saturday Review*, 63–65, 84–85.
- Lemke, J. L. (1990). *Talking science*. Norwood, NJ: Ablex Publishing Corporation.
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects*. Washington, DC: Author. Retrieved from <http://www.corestandards.org/ELA-Literacy/>
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66, 60–92. Retrieved from http://vassarliteracy.pbworks.com/f/Pedagogy+of+Multiliteracies_New+London+Group.pdf

- New York State Department of Education (2011). *New York State P-12 Common core learning standards for English language arts and literacy*. Retrieved from http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/p12_common_core_learning_standards_ela.pdf
- Pantaleo, S. (2004). The long, long way: Young children explore the fabula and syuzhet of *Shortcut*. *Children's Literature in Education*, 35, 1-19. doi:10.1023/B:CLID.0000018897.74948.2a
- Robertson, J. M. (2008). *Fourth- and fifth-grade classroom case study of response to multimodal representations in children's picture books*. (Unpublished doctoral dissertation). Syracuse University, Syracuse, New York.
- Serafini, F. (2005). Voices in the park, voices in the classroom: Readers responding to postmodern picture books. *Reading Research and Instruction*, 44(3), 47-64. doi:10.1080/19388070509558431
- Siegel, M. (2006). Rereading the signs: Multimodal transformations in the field of literacy education. *Language Arts*, 84, 65-77.
- Taxel, J. (1997). Multicultural literature and politics of reaction. *Teacher's College Record*, 98, 417-448.
- Wertheim, M. (n.d.). *Faith and reason: Postmodernism*. Retrieved from <http://www.pbs.org/faithandreason/gen gloss/postm-body.html>
- WETA Public Broadcasting (2015). *Story maps*. Retrieved from <http://www.readingrockets.org/>
- Zipes, J. (2001). *Sticks and stones: The troublesome success of children's literature from Slovenly Peter to Harry Potter*. New York, NY: Routledge.

Children's Literature References

- Allen, D. (2001). *Brothers of the knight*. New York, NY: Puffin.
- Boyd, L. (2014). *Flashlight*. San Francisco, CA: Chronicle Books, LLC.
- Brown, M. W. (2006). *Goodnight moon*. New York, NY: HarperCollins Children's Books.
- Brown, M. W. (2006). *Runaway bunny*. New York, NY: HarperCollins Children's Books.
- Brown, M.W. (1993). *The little island*. New York, NY: Dragonfly Books.
- Cain, J. (2000). *The way I feel*. Seattle, WA: Parenting Press.
- Dr. Seuss (1996). *My many colored days*. New York, NY: Knopf Books for Young Readers.
- Erhardt, K. (2006). *This jazz man*. New York, NY: Harcourt, Inc.
- Gallaz, C., & Arisman, M. (2003). *The wolf who loved music*. Mankato, MN: Creative Editions.
- Gerstein, M. (2002). *What Charlie heard*. New York, NY: Farrar, Straus and Giroux.
- Johnson, D. B. (2002). *Henry builds a cabin*. New York, NY: Houghton Mifflin Company.
- Latimer, A. (2011). *The boy who cried ninja*. New York, NY: Scholastic Inc.
- LaRochelle, D. (2007). *The end*. New York, NY: Scholastic Inc.
- Lenski, L. (1945). *Strawberry girl*. New York, NY: Dell Publishing Co, Inc.
- Liu, J. (2002). *Yellow umbrella*. La Jolla, CA: Kane/Miller Book Publishers.
- Martin, B., Jr., & Archambault, J. (1986). *Barn dance*. New York, NY: Henry Holt and Company, Inc.
- Mayer, M. (1989). *Twelve dancing princesses*. New York, NY: HarperCollins Children's Books.
- Pinkney, B. (1994). *Max found two sticks*. New York, NY: Simon & Schuster Children's Publishing.
- Raschka, C. (1997). *Mysterious Thelonious*. New York, NY: Orchard Books.
- Rylant, C. (1996). *The bookshop dog*. New York, NY: The Blue Sky Press.
- Sanderson, R. (1990). *Twelve dancing princesses*. New York, NY: Little, Brown and Company.
- Taback, S. (1999). *Joseph had a little overcoat*. New York, NY: Penguin Putnam Books for Young Readers.
- Tullet, H. (2011). *Press here*. San Francisco, CA: Chronicle Books.

Wilder, L. I. (1971). *Little house on the prairie*. New York, NY: HarperCollins Children's Books.

Photo Credit

- Figure 1 Dog photo by Mike Baird, Dog Mackenzie in Carrizo Plain Wildflowers-1, CC BY 2.0 https://c1.staticflickr.com/5/4054/4472751860_935be7f465_b.jpg

Endnotes

- 1: John Newbery and Randolph Caldecott are recognized for their contributions to children's literature through the Newbery Medal and Caldecott Medal, which are awarded to the most distinguished authors and illustrators in American children's literature. [Return](#)
- 2: Margaret Wise Brown is most known for writing *Goodnight Moon* (2006) and has also written over one hundred books for children, including *The Runaway Bunny* (2006) and *The Little Island* (1993). These books artfully share big ideas, such as testing a mother's unconditional love or discovering how all things on earth are connected. [Return](#)
- 3: NYS standards are used as an example of how an adaptation of the CCSS can show particular attention to responding to literature. NYS did adopt the CCSS but added the fifth area to the Reading Standards of "Responding to Literature." [Return](#)

8. Helping English Language Learners Develop Literacy Skills and Succeed Academically

Tess M. Dussling

Abstract

The aim of this chapter is to provide educators with background knowledge on English language learners and information on how to better assist culturally and linguistically diverse students to develop the literacy skills crucial for academic success. Differences in social and academic language will be addressed, as well as theories of language acquisition and language learning. Recommendations to educators will be offered to better assist students as they become proficient in the English language while being exposed to new content in the classroom. The chapter also will draw upon the importance of including students' previous experiences, along with embracing students' cultural and linguistic diversity.

Learning Objectives

After reading this chapter, readers will be able to

1. discuss how English language learners' prior experiences influence how they learn;
2. explain different types of programs available for English language learners in schools;
3. describe the difference between social language proficiency and academic language proficiency;
4. explain the developmental stages of learning a new language;
5. offer suggestions for helping English language learners succeed academically.

Introduction

Today's classrooms in the United States are filled with children who speak a variety of native languages and who bring great diversity, culture, and previous experiences with them. As schools become increasingly diverse, there is an urgent need to prepare all teachers to meet the challenge of teaching both content and English language skills to students. English language learners are the fastest growing population of students in the United States (Calderón, Slavin, & Sanchez, 2011), raising many concerns over how educators can best meet the needs of this diverse group of learners. School-aged children considered to be English language learners (ELLs) rose from 3.54 million in 1998–1999 to 5.3 million in 2008–2009 (National Clearinghouse for English Language Acquisition, 2011), and it is estimated that one in five students has a home language other than English (Gonzalez, Yawkey, & Minaya-Rowe, 2006). As the number of ELLs increases in schools across the country, educators face the challenge of providing instruction in English to students who are learning English while combatting academic achievement gaps. While the research cited and strategies discussed in this chapter are presented in the context of teaching English language learners in schools

in the United States, educators in other countries can also apply what is reviewed when teaching English as a new language abroad.

Who are English Language Learners?

The definition of an English language learner is not a simple one as some students may have relatively no knowledge of the English language when entering the classroom while others have mastered many English skills and are now focusing on more difficult academic content. Terms used to describe English language learners do tend to cause some confusion as terms may overlap and change over time. In order to alleviate any confusion, some common terms and acronyms will be briefly explained for a better understanding throughout the rest of the chapter.

English language learner (ELL) is a term used for a person learning English in addition to their native language. It is important to keep in mind that English language learners are students learning English while learning *in* English. Throughout the chapter the term English language learner will be used as a way of emphasizing that the students are learning and progressing in a new language. This term is often preferred over others, as it highlights the learning aspect of acquiring a new language instead of suggesting that students with other native languages are in some way deficient.

Some schools still use the term English as a second language (ESL), but that term may not be accurate for students who already have knowledge of more than one language. Often, ESL refers to the instructional support English language learners receive while in school. You may hear teachers or students refer to ESL class or ESL time during the school day. Certified ESL teachers may be “push-in” teachers, meaning they come into general education classrooms to assist English language learners, or they may pull English language learners out of class for more intensive English language instruction.

English as a new language (ENL) is a term gaining popularity over ESL in some schools and teacher certification programs and is also the term used by the National Board for Professional Teaching Standards (2010). Similarly, as a way of highlighting that many English language learners may have competency of more than two languages, the state of New York has changed Common Core Learning Standard terminology from English as a Second Language Learning Standards to New Language Arts Progressions (EngageNY, 2014). Other common terms seen in schools include English for speakers of other languages (ESOL), English as a foreign language (EFL), and English as another language (EAL). Limited English proficient (LEP) is the term used in legislation and state or federal documents to refer to students who lack sufficient mastery of the English language; however, it has been suggested by teachers and researchers that this term has a negative connotation and views the child as “limited,” when in fact, the child is actually acquiring new language skills. A subpopulation of English language learners who have experienced little or no formal schooling are referred to as students with interrupted formal education (SIFE) or students with limited or interrupted formal education (SLIFE). This group of ELLs has missed educational experiences in their home country due to a number of factors including the unavailability of school, war, or migration. It is quite possible that students with limited or interrupted education may not have a strong grasp of literacy in their native language and face a triple threat when entering schools in the United States: developing proficiency in the English language, learning grade-level subject matters, and developing and/or improving literacy skills (DeCapua, Smathers, & Tang, 2007). It should be noted that it is often much easier for a student to learn to read in English when they are already literate in their primary language (e.g., August & Shanahan, 2006; Rolstad, Mahoney, & Glass, 2005; Slavin & Cheung, 2005). Some researchers believe this is because students who are learning to read for the first time in a new language have to do twice the work since they are learning the process of reading while learning a new language (Short & Fitzsimmons, 2007). In a large review of scientific research on English language learners in the United States, Genesee, Lindholm-Leary, Saunders, and Chris-

tian (2005) reported that English literacy development is greatly influenced by literacy knowledge in the learner's first language. Additionally, English language learners who are literate in their first language can draw upon strategies they already know such as making inferences and using prior knowledge to help gain understanding when reading in a new language.

English Language Learners in Schools

The academic performance of English language learners cannot be fully understood without considering their social, cultural, and economic characteristics, as well as the institutional history of U.S. schools (Jensen, 2008). As would be expected, there is a large range of socioeconomic status levels and parental education attainment levels among English language learners. However, English language learners are more likely than native English speaking students to live in poverty and have parents with limited formal education (García & Jensen, 2006). This is mentioned because it is important to keep in mind that the educational achievement of English language learners, like native English speaking students, can be impacted by a variety of background factors including family income, parental educational attainment, parental language proficiency, and family structure.

It is imperative for educators to understand that children's prior experiences can impact how they learn (e.g., Hammer, Lawrence, & Miccio, 2007; Konishi, 2007). There may be a tendency for teachers to lump English language learners into one group, expecting the children to act and learn in the same way. In reality, like native English speakers, English language learners come from a variety of backgrounds, cultures, and languages. ELLs are a highly heterogeneous group of students with diverse backgrounds, abilities, and needs. These children bring with them a range of experiences and varying prior knowledge. Children will develop language skills at different speeds, and teachers should be aware that they cannot expect all ELLs to learn in the same fashion (Harper & de Jong, 2004). It is also important to consider a child's prior language experiences. Some children come to school with prior exposure to English, while others may not be introduced to English until they begin school. Children's outcomes may differ depending on when they were first exposed to English (Hammer et al., 2007). Understanding students' linguistic and cultural knowledge both at school and beyond school (e.g., first language literacy, oral proficiency levels, language(s) spoken at home, and prior experiences) can help teachers link new material and vocabulary words to things students may already know (Cummins et al., 2005; de Jong, Harper, & Coady, 2013).

The amount of cultural and linguistic diversity in a classroom may vary depending on its location. In a metropolitan area there may be students from a great number of countries, representing many different languages, or a group of students that share the same native language if it is a location where many immigrants come to work in a specific industry or in a community that has recently welcomed a large refugee population. Each of these situations offers its own unique advantages and challenges. In a classroom full of cultural and linguistic diversity, English will be the only possible method of communication between a teacher and students. This will inevitably create a situation where students have no choice but to practice English often. On the other hand, if many of the students speak the same language, a teacher can embrace this by having the class note similarities and differences between the languages. Additionally, students can offer support for one another in their native language. Regardless of the composition of a class, it is important to remember that English language learners are not a homogenous group. As a reminder, even in a class where most of the students speak the same native language, they could have a variety of socioeconomic status backgrounds, may have lived in radically different parts of the same country, and could have vastly different experiences with formal schooling. For example, an English language learner in your class may have come from a country where students attend school for eight hours a day, five or six days a week, and prepare for competitive exams. Another student may have attended school in a refugee camp where classes with 70 to 80 peers took place in temporary shelters with little furniture.

Educational programs for English language learners

There is quite a bit of controversy about how to best ensure the success of English language learners. Policy makers, researchers, and educators alike have been trying to figure out what is the appropriate role of a child's native language when learning English. A landmark legal case, *Lau v. Nichols* (1974), brought the issue of educational practices regarding English language learners into the limelight. Chinese American students challenged the school board in San Francisco, saying that they were not receiving appropriate educational opportunities because of their limited English proficiency. The Supreme Court ruled in favor of the students, acknowledging the need to better serve English language learners. While the outcome of the case was an important legal event for bilingual education, it did not establish any specific bilingual policy.

When referring to different types of educational programs for English language learners, it should be noted that there is a wide variety of both bilingual programs and English-only programs. Bilingual programs can encompass anything from dual language to early exit programs; while English-only programs may differ in the amount of help from the primary language they allow (Krashen & McField, 2005). In dual language programs, children are taught content in two languages throughout the school day, whereas early exit programs begin instruction in a child's native language and then gradually transition to completely English instruction.

In immersion programs, a child's native language plays virtually no role. While teachers may use supportive strategies to help English language learners, a common feature is the exclusive use of English text. English immersion programs are being encouraged in several states due to adoption of English-only legislation. These laws require that all children be taught English by using solely English, with claims that children can reach English proficiency in one year's time (MacSwan & Pray, 2005). For example, California, Arizona, and Massachusetts have passed laws with the intention to bar the use of primary language instruction for English language learners. These states have replaced bilingual programs with Structured English Immersion programs, which aim to expedite the English learning process by using simple English in the classroom with little to no attention on the students' native languages (Gándara et al., 2010). All three states aim to have students in Structured English Immersion programs for no more than one year before they are moved to regular classes. However, evidence from research suggests that students need three to five years to achieve advanced English proficiency (Genesee, Lindholm-Leary, Saunders, & Christian, 2006). In their study on acquisition of English, MacSwan, and Pray (2005) found that only about two percent of children attained English language proficiency in one year. It has been suggested that since the United States has made an effort to maintain the dominance of the English language in schools, a culture has developed that defines students by English proficiency (Gándara et al., 2010). An example of this can be found in terms used in government documents and schools, such as Limited English Proficient, that focus exclusively on how well a student has acquired the English language.

In contrast to English-only programs, bilingual education programs involve both the native language and English when addressing academic content. Bilingual education can refer to a wide range of instructional programs for children whose native language is not English with the goal of helping students acquire English so they can succeed in mainstream classes. In the United States, the most common bilingual programs offer instruction in English and Spanish, as approximately 80% of ELLs in U.S. schools are from Spanish-language backgrounds (Loeffer, 2007). Proponents of bilingual education believe that effective bilingual programs should strive to instill proficiency in both English and the student's native language. In two-way bilingual programs, half of the students are native English speakers and half are considered English language learners. These programs aim to teach children more about language and culture and rest on the premise that diversity is a valuable resource. According to Krashen and McField (2005), "when it comes to English acquisition, native-language instruction is part of the solution, not part of the problem" (p. 10).

A benefit of bilingual education programs is that children are able to further their language abilities in their home language while learning a new language. Studies conducted by Willig (1985) and Wong-Fillmore and Valadez (1986) found that benefits of bilingual education included improved reading and other academic skills, plus a recent meta-analysis by Rolstad et al. (2005) showed that bilingual education is superior to English-only programs by showing that bilingual education does promote academic achievement. Coppola (2005) stressed that knowledge gained in one language is available for use in the second language and that some language abilities can be transferred. A fear of English-only programs is that children will begin to lose skill in their native language. It is not a stretch to say that if children lose proficiency in their home language, they lose a piece of their identity. If students begin to lose their home language, communication with family members can become difficult, causing tension and disruption of family dynamics. Sadly, children may even begin to view their native language as inferior to English. Still, the hope is that bilingual programs will be adding a new language instead of replacing the native language with English. It should be noted that while benefits of bilingual education have a strong research base, a common argument against bilingual education is that many people have succeeded in acquiring a new language without such programs, fueling restrictive language policies in some states as mentioned previously.

Academic and Social Language Proficiency

Historically, literature has noted a divide between the development of social language abilities in English language learners and the development of academic language (Hawkins, 2004). Cummins (1979) coined the acronyms BICS (Basic Interpersonal Communicative Skills) and CALP (Cognitive Academic Language Proficiency) to help explain students' language abilities to teachers. This distinction helps highlight that many English language learners may quickly develop proficiency in casual spoken English but may continue to struggle with academic language and writing. Awareness of the differences between social language and academic language can help teachers assist students in all domains of language—listening, speaking, reading, and writing. When making the distinction between conversational or social language and academic language, Cummins drew upon work by Skutnabb-Kangas and Toukomaa (1976), who had been studying Finnish children living in Sweden. While the children were seemingly fluent in both Finnish and Swedish, they were falling behind academically and not meeting grade level expectations. Cummins (1979) hypothesized that there were two elements of language proficiency, one reflecting the ability to carry on conversations about everyday events, and another that was needed to comprehend school subjects. In one study testing this hypothesis, Cummins (1984) examined four hundred teacher referral forms and psychological assessments of English language learners from a large school district in Canada. Similar to what was found with Finnish children in Sweden, the forms prepared by teachers and psychologists noted that the children had no difficulty understanding English, yet they were performing poorly on English tasks in the classroom and on the verbal portions of cognitive ability tests. Since the English language learners appeared to speak English well, the teachers and psychologists assumed difficulties in class were due to cognitive abilities rather than linguistic factors and placed many of the children in special education. Cummins argued that English language learners may not necessarily have difficulties learning, but that there was the possibility that they had not developed the appropriate type of language proficiency to be successful in an academic setting. He believed that these ELLs had developed the ability to converse casually, but had not developed academic language proficiency.

Basic Interpersonal Communicative Skills (BICS), which are typically acquired first when learning a new language, refers to language skills often needed in social settings. Social language is the type of language students need for mingling in the lunchroom, on the playground, and in

school hallways. Students may pick up on classroom routines quickly and learn essential vocabulary words such as *water* and *bathroom*. This is the type of language that is learned when there are many clues to aid comprehension. Background knowledge on the topic and clues such as facial expressions provide a context to understand this type of language; however, it can be easy to mistake the social ability that English language learners first develop for the type of proficiency and fluency necessary to succeed in the classroom.

Cognitive Academic Language Proficiency (CALP) refers to the formal academic language that is needed for success in school. In the literature surrounding the education of English language learners, academic language is thought of as the focus of the curriculum, textbooks, and formal instruction. This type of language is not part of a student's typical vocabulary, yet is often required for lectures, reports, and other academic situations. When faced with academic language, students must be able to rely on the actual language, not clues, to make meaning. Introducing key terms before a lesson, utilizing pictures with new vocabulary words, and assessing background knowledge are all ways teachers can help engage English language learners with academic language.

Cummins (1980) stated that BICS, language used in informal and face-to-face interactions, can be acquired by English language learners quite quickly and easily, while the more cognitively challenging CALP takes longer to acquire. Teachers are confused often when English language learners, who seem to converse with great fluency, struggle in academic areas. It is likely that this confusion is due to the fact that it takes much longer to develop proficiency in content material because it is much more demanding cognitively. The distinction between BICS and CALP is often shown using a picture of an iceberg (see Figure 1). The tip of the iceberg that we can see represents BICS, the conversational fluency that can often lead to mistaken assumptions about a student's academic work abilities. However, the much larger portion of the iceberg is beneath the water, representing CALP, the academic language necessary for success in the classroom.

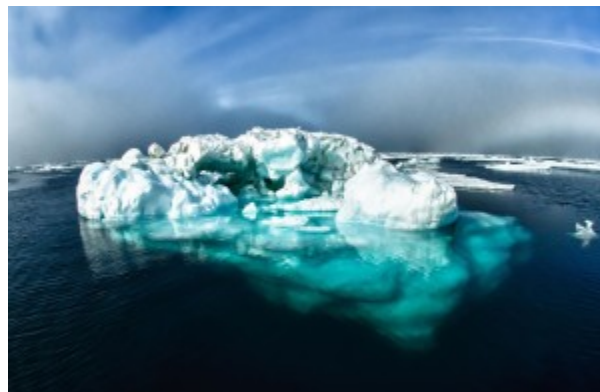


Figure 1. The visible tip of the iceberg represents how conversational fluency may lead to assumptions about a student's academic work abilities. The section of the iceberg beneath the water represents the actual academic language necessary for success in the classroom.

Language Acquisition Theories and Application

For teachers to effectively meet the needs of English language learners, it is important to have an understanding about the process of acquiring a new language. Research has long supported the idea that similar language and thinking processes are at play between acquiring a first language and acquiring another language (e.g., Dulay & Burt, 1974; Ervin-Tripp, 1974; Ravem, 1968). English language learners, like monolingual learners, acquire language through a series of developmental stages that form a continuum. This continuum is divided into levels signifying the proficiency level

of the language learner. It is important to understand that while all English language learners typically acquire English by passing through the same series of stages, the pace of acquisition varies greatly. Students who are literate in their native language or who have had continuous schooling are much more likely to move through the stages at a faster pace than someone who is not literate in their native language or who has had limited or interrupted formal education. Understanding a student's English proficiency level can help teachers plan appropriate lessons and assessments to meet the individual needs of the English language learner.

Generally, English language learners have stronger receptive language skills (listening and reading) than productive language skills (speaking and writing), and their vocabulary will be stronger in whichever language they are exposed to the most often. An English language learner may know the name for a word in one language but not in the other language. For example, a child may know words for *microwave* and *refrigerator* only in Spanish because all prior experience with those objects occurred in the home with parents who speak Spanish. Conversely, the same child may know the names of school objects only in English because that is where they are exposed to them. Given appropriate exposure and opportunities to develop both languages, children can gain comparable abilities in each language.

Theories about how people learn a new language are often derived from theories about how people learn a first language. Since first language acquisition is accomplished by children worldwide, researchers and educators interested in second (or third or fourth) language acquisition have often used first language acquisition theories as a model. Linguist Stephen Krashen believes that there is no fundamental difference between how people acquire their first language and how they acquire subsequent languages. However, Krashen (1982) does make a distinction between language acquisition and language learning. He notes that language acquisition is a natural process in that young children typically acquire their native language at home with no formal teaching. Acquiring a language is simply "picking it up" and being able to use the language in natural situations. When people have acquired a language, they do not need to think about the formal rules of the language. Instead, there is a subconscious feeling that sentences "sound right" or "sound wrong." On the other hand, learning a new language includes understanding things such as grammar and the formal rules of the language.

Krashen's theories about how a child acquires a new language have been influential in promoting instructional practices that encourage teachers to focus on communication with students and that allow students to develop at a pace that is appropriate for their developmental stage. In their classic book *The Natural Approach* (1983), Krashen and Terrell first explored the stages of language acquisition and explained ways teachers could help with the process in the classroom. These naturally occurring stages, often referred to in literature surrounding the education of English language learners, are 1) pre-production, 2) early production, 3) speech emergence, 4) intermediate fluency, and 5) advanced fluency. An adapted summary of these five stages follows, along with approximate time frames, characteristics of each stage, and suggested instructional strategies for teachers. More information and summaries of these stages can be found on pages of websites such as *¡Colorín Colorado!*, *Everything ESL*, *ESL Base*, and *Association for Supervision and Curriculum Development*.

The pre-production stage is generally thought to last anywhere from a few hours to the first six months when learning a new language. Often referred to as the silent or receptive stage, English language learners are beginning to understand the new language but typically do not engage in conversations. Students at this first stage may just be starting to feel comfortable in a new setting and may use nonverbal communication to respond to comments. It is important to keep in mind that silence does not necessarily mean that the student is not learning. The English language learner may be taking in a lot of information, but is just not yet ready to speak. Helpful instructional strategies include using real objects to illustrate concepts, role playing or pantomiming, pointing to pic-

tures, and employing total physical response (TPR). The total physical response method, developed by psychologist James Asher (1977), coordinates language with physical movement to help students learn the target language. In early TPR lessons, students may learn simple commands such as stand up or clap your hands (taught while the teacher is standing up or clapping his or her hands). As students begin to develop a greater grasp of the language, the commands can become more complex and students can even give out commands for their teacher and peers to follow. TPR does not have to be limited to students at the earliest stage of language acquisition. Including body movements can help children of all language levels and in a variety of subject areas (Segal, 1983; Zwiers, 2007). It is quite likely that a student would gain a deeper understanding of vocabulary and concepts, such as how planets rotate around the sun by actually moving objects around a model of a sun. The same could be true for acting out an important event being taught in a history or social studies class.

Early production, the second stage, thought to last six months to a year, is characterized by limited comprehension and the initiation of short sentences. Students at this phase are likely to grasp the main idea of topics but not every word spoken. During early production students may respond with one to three word groupings and begin to produce words that are frequently used. Teachers can help students at this stage by asking them yes or no questions during class. Granted, teachers are usually encouraged to ask open-ended questions to elicit more information from students; however, asking an English language learner yes–no questions during this phase may help create a low anxiety environment, help them feel more included in the classroom activities, and keep them engaged in the lessons. It may also be beneficial for teachers to rephrase statements using simpler vocabulary to boost comprehension.

Speech emergence, lasting anywhere from one to three years, is thought of as a time of experimentation as students begin to learn more about vocabulary and sentence structure. Students at this stage often engage in trial and error as they initiate simple sentences. Teachers can help by providing language models for students to use in response to questions and by expanding the question format to include *how* and *why* questions.

Students in the intermediate fluency stage begin to use longer and more complex sentences. At this time, students have typically been immersed in the new language for three to five years. Teachers can foster development at this stage by asking students to compare elements of language and focus on the similarities and differences between English and their native language. Many languages have cognates, which are words with shared meanings from common roots (e.g., curious/*curioso*, geography/*geographía*). Pointing out simple cognates can help increase students' vocabularies and comprehension. This may also be a good time to point out false cognates which can be the root of some trouble in conversations for students. Examples of false cognates include rope and *ropa*, with *ropa* meaning clothes, and an even more troubling one includes embarrassed and *embarazada* (pregnant). During the intermediate fluency stage, teachers can also help students identify words they overuse, such as nice and good and build their vocabularies with more sophisticated terms.

The last stage in Krashen and Terrell (1983) is advanced fluency, which usually happens between years five and seven of learning a new language. At this point students are beginning to converse and write in much the same way as native speakers of English. It is also during this time that students truly begin to grasp the academic language used in formal schooling, which allows teachers to focus more on abstract terminology and concepts.

Knowing about stages of language acquisition helps educators understand that language learning is a gradual process and helps move some teachers away from the idea of avoiding presentation of academic content until students have a strong grasp on the language. Understanding the stages of language learning and where a student falls on the language learning continuum can help teachers tailor their lessons to meet the various needs of the students. Furthermore, when teachers understand an English language learner's oral English proficiency, they can ask questions in a variety of

appropriate forms, such as requiring a one word answer or a lengthy response (de Jong et al., 2013). Appropriately scaffolding instruction helps students feel challenged in the classroom, but not overwhelmed. Recognizing the strengths and weaknesses of all learners in the classroom involves targeting instruction at each student's zone of proximal development (Vygotsky, 1978). The zone of proximal development (ZPD) is a theory proposed by psychologist Lev Vygotsky explaining what a child can accomplish with support (e.g., scaffolding), compared to what he or she can accomplish independently. It may be helpful for teachers to think of this area as the area between what a student can do right now on their own and the point you want them to reach next. Teachers can help students reach that next area by providing support, guidance, modeling, and feedback to help them progress.

Building upon Cultural and Linguistic Capital

The rapidly changing demographics of the U.S. have posed extraordinary challenges for educators to accommodate the various needs of English language learners, including ways to promote the sociolinguistic, sociocultural, and socioemotional development of such a diverse student population (Li & Wang, 2008), in addition to teaching reading and content knowledge. To successfully address the needs of English language learners and to ensure their academic success, it is important for teachers to develop instructional practices that are culturally responsive and that build upon students' linguistic and cultural backgrounds (Gay, 2000; Li, 2008). For teachers to implement culturally responsive instructional practices, they must learn who their students are, where their students are from, factors that influence student learning both inside and outside of school, the types of resources available to the students, and appropriate strategies to facilitate student learning.

Culturally responsive teaching is built on the notion that culture is central to student learning. According to Nieto (2000), culturally responsive teaching creates optimal learning environments by recognizing, respecting, and using students' identities and previous experiences as meaningful sources of information. Language learning is complex and can be affected by many interrelated factors. How can teachers build upon the rich cultural and linguistic capital of their students? How can we expect English language learners to succeed in the classroom without bearing in mind how their cultures, languages, and previous experiences have shaped their background knowledge? Making connections to students' backgrounds is one of the most important aspects of culturally responsive teaching. While building background knowledge is essential for all learners, it is especially important for English language learners who are learning content and language simultaneously. Whenever possible, programs for ELLs should support the child's native language. This helps show value in the English language learner's native language and ensures that learning English is an additive process and not one that results in losing the native language.

Teachers must be able to understand the linguistic needs of English language learners and implement lessons that effectively meet those needs. Many teachers find it helpful to gain specific information regarding how much English their students use, when they use English, and with whom they speak English. Often, teachers may be working with children who may not yet have a strong foundation in their home language, making acquisition of English even more difficult. Young children in particular may not have completely developed many aspects of their first language.

Additionally, it is important for teachers to know about students' levels of literacy in their first language, levels of oral proficiency in English, and educational background. A case study by Rubinstein-Avila (2004) of Miguel, an adolescent English language learner who was struggling with literacy development, was able to show that even "students who do not necessarily conform to teachers' notions of 'academic applied pupils' may possess a great deal of awareness about their own learning and be highly motivated" (p. 300). Although Miguel was a struggling reader at school,

his literacy skills were crucial for life at home. He helped his mother with legal documents and by scouring weekly sale advertisements to find the best deals. Miguel also served as a translator, both written and oral, for his mother. Studies such as this one are crucial to the field to show educators that English language learners bring a variety of skills with them to the classroom and have a lot to offer. This study showed that the ways in which an individual uses literacy may not necessarily conform to traditional school views of literacy. It is important for both researchers and educators to be aware of the various contexts in which students use literacy.

As English language learners are being enrolled in American schools in record numbers, educators must strive to provide effective learning environments that are developmentally and linguistically appropriate for all learners. Given that increasing numbers of students are coming from non-English speaking households, there is a need for educators to know about the needs of diverse students and to have an understanding of cultural and linguistic diversity (Coppola, 2005; Fernandez, 2000).

Helping English Language Learners Develop Literacy Skills and Succeed Academically

Research has shown that the process of learning to read is lengthy. It is recommended that all children, especially those at risk of experiencing reading difficulties, be exposed to print-rich environments that promote language and literacy growth (Snow, Burns, & Griffin, 1998). Components of appropriate language environments for students include engaging them in conversations to foster oral communication and cognitive abilities. English language learners benefit from exposure to language modeling and may need specific developmentally appropriate strategies to assist the development of language skills (Oades-Sese, Esquivel, Kaliski, & Maniatis, 2011).

Six years after the publication of the *Report of the National Reading Panel* (NRP; National Institute of Child Health and Human Development [NICHD], 2000), which excluded studies with English language learners, a large research review on educating English language learners was published. The National Literacy Panel (NLP) examined research on literacy development of English language learners ages 3 to 18 and included studies from around the world (August & Shanahan, 2006). The NLP found that English language learners who are learning to read in English, just like native English speakers learning to read in English, benefit from early and explicit instruction in the crucial components of literacy identified by the National Reading Panel—phonemic awareness, phonics, fluency, vocabulary, and comprehension (NICHD, 2000). According to Linan-Thompson, Cirino, and Vaughn (2007), there is growing evidence suggesting that many early reading intervention strategies that have been shown to be effective with native English speaking students can also be effective with English language learners. With the majority of English language learners receiving reading instruction solely in English (August, 2006; Goldenberg, 2008), it is important to continue to identify interventions that have been effective with English speaking struggling readers that are also effective for English language learners who are struggling to learn to read.

Some adolescent English language learners may have reasonably developed language abilities, but still struggle learning to read. August and Shanahan (2006) suggest that it may be necessary, particularly for adolescent ELLs who cannot read or write in any language, to explicitly teach the basic components of reading, beginning with phonemic awareness and phonics. After adolescent ELLs have acquired the basic skills necessary for reading words, instruction can focus on comprehension strategies, fluency building exercises, and fostering greater vocabulary understanding through explicit instruction of words, word parts, and word relationships.

In addition to knowledge related to language and reading skills, teachers working with diverse learners also need a collection of strategies and techniques to help meet the diverse cultural and lin-

guistic needs of students. Students who are at the early stages of English language proficiency benefit from linguistic, graphic, and visual supports (Facella, Rampino, & Shea, 2005; Herrel & Jordan, 2012). For example, linguistic supports could include things such as opportunities to interact and engage in conversations, providing students with language models, and modification of sentence patterns. Examples of graphic supports would be providing tables or graphic organizers to assist learners. Graphic organizers, such as idea webs or story pyramids, are greatly beneficial to ELLs because they can facilitate an understanding of challenging concepts and ideas without the use of long explanations that may be confusing. Cummins, Mirza, and Stille (2012) advocate for the use of visual aids and graphic organizers as a way to scaffold academic language for English language learners, noting that this can enhance literacy engagement. See Table 1 at the end of this chapter for websites offering graphic organizers that can be downloaded. As a way of providing visual supports, teachers can use pictures or illustrations, manipulatives, and multimedia. Effective teaching strategies for ELLs as described by Facella and colleagues (2005) include the use of gestures and visual cues, repetition, and the use of real objects. Other useful strategies for teachers may include grouping ELLs with students who have strong English abilities, exposing ELLs to rich oral language, and incorporating their home language whenever possible. It is important to note that these groups and tasks should be purposefully designed and monitored by the teacher to ensure comfort and inclusion. While cooperative learning activities can be extremely helpful for English language learners, it is imperative that teachers scaffold these activities so that English language learners of all proficiency levels can benefit (Zwiers & Crawford, 2011). Teachers should also encourage parents to read with their children, even if that is only possible in their home language. As mentioned before, language skills can transfer and skills in one language can support language and literacy building in the other language.

Many schools across the country use a framework known as sheltered instruction that incorporates techniques and strategies such as the use of graphic organizers and cooperative learning, as a way to help English language learners access the curriculum while emphasizing the development of academic language (Echevarria, 2006). The Sheltered Instruction Observation Protocol (SIOP) Model was developed through a federally funded research project (Center for Applied Linguistics, 2015) to help educators design and teach lessons aimed at improving the literacy abilities of English language learners. Additional research is still needed to specifically explore the effectiveness of the SIOP Model, since to date, no well controlled studies have been done to evaluate the model in comparisons to other approaches using evidence standards of research outlined in Chapter 2 of this textbook.

Summary

With the population of English language learners in U.S. schools continuing to rise, more and more teachers will be responsible for educating culturally and linguistically diverse students. English language learners come to the classroom with varying levels of English proficiency, various life and school experiences, as well as different learning needs. This chapter was designed to move through theory and into practice to help teachers engage all learners and design effective instructional opportunities for English language learners. A brief background of English language learners was presented, with an emphasis on language acquisition and learning theories. Information in this chapter provides educators with background knowledge and strategies to best meet the needs of English language learners to promote language acquisition and help them succeed academically.

Table 1. *Links to Selected Resources for Teachers of English Language Learners*

Resources	Sponsor	Weblink
Bilingual (English and Spanish) website for families and educators of English language learners	<i>iColorin Colorado!</i>	http://www.colorincolorado.org/

Resources	Sponsor	Weblink
Lesson plans, teaching tips, and resources (including graphic organizers) for ESL teachers	<i>Everything ESL</i>	http://www.everythingsl.net/
Meeting place for ESL and EFL teachers and students from around the world	<i>Dave's ESL Café</i>	http://www.eslcafe.com/
Collection of ready-to-use graphic organizers	<i>TeacherVision</i>	https://www.teachervision.com/

Questions and Activities

1. Discuss some of the possible benefits of bilingual education as opposed to English-only instruction.
2. How do social language and academic language differ? Which type of language typically develops first and why?
3. Suppose you overhear a teacher say that an English language learner in her class seems to have a strong grasp on the language because she hears him talking and joking with his friends at lunch and recess. She expresses concern and confusion over why he continues to struggle with the content in class. What can you say to this teacher to help her understand language development for English language learners?
4. Think about preparing a science lesson for a class that includes English language learners of varying English proficiency levels. What are some ways that you can scaffold the science lesson to help the students understand new terms or content?
5. Discuss why it is important for a teacher to understand the developmental stages of learning a new language.
6. Briefly explain how teachers can elicit responses and encourage classroom participation from English language learners in each of the stages of language acquisition addressed in this chapter (pre-production, early production, speech emergence, intermediate fluency, and advanced fluency).
7. Discuss how English language learners' prior experiences may influence how they learn.

References

- Asher, J. (1977). *Learning another language through actions: The complete teacher's guide*. Los Gatos, CA: Sky Oaks Publications.
- August, D. (2006). Demographic overview. In D. August & T. Shanahan (Eds.), *Developing literacy in second-language learners: Report of the National Literacy Panel on language-minority children and youth* (pp. 43–49). Mahwah, NJ: Lawrence Erlbaum Associates.
- August, D., & Shanahan, T. (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on language-minority children and youth*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Calderón, M., Slavin, R., & Sánchez, M. (2011). Effective instruction for English learners. *The Future of Children*, 21, 103–127. doi:10.1353/foc.2011.0007
- Center for Applied Linguistics. (2015). *Sheltered Instruction Observation Protocol*. Retrieved from <http://www.cal.org/siop/index.html>
- Coppola, J. (2005). English language learners: Language and literacy during the preschool years. *New England Reading Association Journal*, 41(2), 18–23.

- Cummins, J. (1979). *Cognitive/academic language proficiency, linguistic interdependence, the optimum age question and some other matters*. Working Papers on Bilingualism, No. 19, 121–129. Toronto, Canada: Ontario Institute for Studies in Education.
- Cummins, J. (1980). The cross-lingual dimensions of language proficiency: Implications for bilingual education and the optimal age issue. *TESOL Quarterly*, 14, 175–187. doi:10.2307/3586312
- Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy*. Clevedon, England: Multilingual Matters.
- Cummins, J., Bismilla, V., Chow, P., Giampapa, F., Cohen, S., Leoni, L., Sandhu, P., & Sastri, P. (2005). Affirming identity in multicultural classrooms. *Educational Leadership*, 63, 38–43.
- Cummins, J., Mirza, R., & Stille, S. (2012). English language learners in Canadian schools: Emerging directions for school-based policies. *TESL Canada Journal*, 29, 25–48.
- DeCapua, A., Smathers, W., & Tang, F. (2007). Addressing the challenges and needs of students with interrupted formal education (SIFE). *Educational Policy & Leadership*, 65, 40–46.
- de Jong, E. J., Harper, C. A., & Coady, M. R. (2013). Enhanced knowledge and skills for elementary mainstream teachers of English language learners. *Theory into Practice*, 52, 89–97. doi:10.1080/00405841.2013.770326
- Dulay, H. C., & Burt, M. K. (1974). Errors and strategies in child second language acquisition. *TESOL Quarterly*, 8, 129–136. doi:10.2307/3585536
- Echevarria, J. (2006). Helping English language learners succeed. *Principal Leadership*, 6(5), 16–21.
- EngageNY.org of the New York State Education Department. (2014). NYS bilingual Common Core initiative: Theoretical foundations. Retrieved from <https://www.engageny.org/resource/new-york-state-bilingual-common-core-initiative>
- Ervin-Tripp, S. (1974). Is second language learning like the first? *TESOL Quarterly*, 8, 111–127. doi:10.2307/3585535
- Facella, M. A., Rampino, K. M., & Shea, E. K. (2005). Effective teaching strategies for English language learners. *Bilingual Research Journal*, 29, 209–223. doi:10.1080/15235882.2005.10162832
- Fernandez, R. C. (2000). No hablo Inglés: Bilingualism and multiculturalism in preschool settings. *Early Childhood Education Journal*, 27(3), 159–163. doi:10.1007/BF02694229
- Foppoli, J. (2015). *The silent period of second language acquisition*. Retrieved from <http://www.eslbase.com/articles/acquisition>
- Gándara, P., Losen, D., August, D., Uriate, M., Gómez, M. C., & Hopkins, M. (2010). Forbidden language: A brief history of U. S. language policy. In P. Gándara & M. Hopkins (Eds.), *Forbidden language: English learners and restrictive language policies* (pp. 20–33). New York, NY: Teachers College Press.
- Garcia, E., & Jensen, B. (2006). Dual-language programs in the U.S.: An alternative to monocultural, monolingual education. *Language Magazine*, 5(6), 30–37.
- Gay, G. (2000). The power of caring. In *Culturally responsive teaching: Theory, research, and practice*. New York, NY: Teacher's College Press.
- Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2005). English language learners in U.S. schools: An overview of research findings. *Journal of Education for Students Placed at Risk*, 10(4), 363–385. doi:10.1207/s15327671espr1004_2
- Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2006). *Educating English language learners*. New York, NY: Cambridge University Press.
- Goldenberg, C. (2008, Summer). Teaching English language learners: What the research does-and does not-say. *American Educator*, 32(2), 8–23, 42–44. Retrieved from <http://www.aft.org/sites/default/files/periodicals/goldenberg.pdf>

- Gonzalez, V., Yawkey, T., & Minaya-Rowe, L. (2006). *English as a second language (ESL) teaching and learning: Pre-K-12 classroom applications for students' academic achievement and development*. Boston, MA: Pearson.
- Hammer, C. S., Lawrence, F. R., & Miccio, A. W. (2007). Bilingual children's language abilities and early reading outcomes in head start and kindergarten. *Language, Speech & Hearing Services in Schools, 38*, 237-248. doi:10.1044/0161-1461(2007/025)
- Harper, C., & de Jong, E. (2004). Misconceptions about teaching English-language learners. *Journal of Adolescent & Adult Literacy, 48*, 152-162. doi:10.1598/JAAL.48.2.6
- Hawkins, M. R. (2004). Researching English language and literacy development in schools. *Educational Researcher, 33*, 14-25. doi:10.3102/0013189X033003014
- Haynes, J. (n.d.). Stages of second language acquisition. Retrieved from http://www.everythingsl.net/inservices/language_stages.php
- Herrell, A. L., & Jordan, M. (2012). *50 strategies for teaching English language learners* (4th ed.). Boston, MA: Pearson Education, Inc.
- Hill, J. D., & Björk, C. L. (2008). *Classroom instruction that works with English language learners facilitator's guide*. Denver, CO: Mid-continent Research for Education and Learning.
- Jensen, B. T. (2008). Immigration and language policy. In J. González (Ed.), *Encyclopedia of bilingual education* (pp. 372-377). Thousand Oaks, CA: Sage. doi:10.4135/9781412963985.n150
- Konishi, C. (2007). Learning English as a second language: A case study of a Chinese girl in an American preschool. *Childhood Education, 83*, 267-272. doi:10.1080/00094056.2007.10522930
- Krashen, S. D. (1982). *Principles and practices in second language acquisition*. Oxford, England: Pergamon.
- Krashen, S., & McField, G. (2005). What works? Reviewing the latest evidence on bilingual education. *Language Learner, 1*(2), 7-10, 34.
- Krashen, S. D., & Terrell, T. D. (1983). *The natural approach: Language acquisition in the classroom*. Oxford, England: Pergamon.
- Lau v. Nichols, 414 U.S. 5637 (1974). Retrieved from <http://caselaw.findlaw.com/us-supreme-court/414/563.html>
- Li, G. (2008). *Culturally contested literacies: America's "rainbow underclass" and urban schools*. New York, NY: Routledge.
- Li, G., & Wang, W. (2008). English language learners. In T. Good (Ed.), *21st century education: A reference handbook* (pp. II-97-II-105). Thousand Oaks, CA: Sage.
- Linan-Thompson, S., Cirino, P. T., & Vaughn, S. (2007). Determining English language learners' response to intervention: Questions and some answers. *Learning Disability Quarterly, 30*, 185-195. doi:10.2307/30035563
- Loeffler, M. (2007). *NCELA Fast FAQ 4: What languages do ELLs speak?* Washington, DC: National Clearinghouse for English-Language Acquisition and Language Instruction.
- MacSwan, J., & Pray, L. (2005). Learning English bilingually: Age of onset of exposure and rate of acquisition among English language learners in a bilingual education program. *Bilingual Research Journal, 29*, 653-678,730. doi:10.1080/15235882.2005.10162857
- National Board for Professional Teaching Standards. (2010). *English as a new language standards* (2nd ed.). Arlington, VA: Author.
- National Clearinghouse for English Language Acquisition. (2011). *The growing numbers of English learner students 1998/99-2008/09* [poster]. Retrieved from http://www.ncela.us/files/uploads/9/growingLEP_0809.pdf
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on*

- reading and its implications for reading instruction: Reports of the subgroups.* (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf>
- Nieto, S. (2000). Placing equity front and center: Some thoughts on transforming teacher education for a new century. *Journal of Teacher Education*, 51, 180-187. doi:10.1177/0022487100051003004
- Oades-Sese, G. V., Esquivel, G. B., Kaliski, P. K., & Maniatis, L. (2011). A longitudinal study of the social and academic competence of economically disadvantaged bilingual preschool children. *Developmental Psychology*, 47, 747-764. doi:10.1037/a0021380
- Ravem, R. (1968). Language acquisition in second language environment. *International Review of Applied Linguistic in Language Teaching*, 6, 175-185. doi:10.1515/iral.1968.6.1-4.175
- Robertson, K., & Ford, K. (2008). *Language acquisition: An overview*. Retrieved from <http://www.colorincolorado.org/article/26751/>
- Rolstad, K., Mahoney, K., & Glass, G. V. (2005). The big picture: A meta-analysis of program effectiveness research on English language learners. *Educational Policy*, 19(4), 572-594. doi:10.1177/0895904805278067
- Rubinstein-Avila, E. (2004). Conversing with Miguel: An adolescent English language learner struggling with later literacy development. *Journal of Adolescent & Adult Literacy*, 47, 290-301.
- Segal, B. (1983). *Teaching English through action*. Brea, CA: Berty Segal, Inc.
- Short, D., & Fitzsimmons, S. (2007). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners—A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.
- Skutnabb-Kangas, T., & Toukoma, P. (1976). *Teaching migrant children's mother tongue and learning the language of the host country in the context of the sociocultural situation of the migrant family*. Helsinki, Finland: The Finnish National Commission for UNESCO.
- Slavin, R., & Cheung, A. (2005). A synthesis of research on language of reading instruction for English language learners. *Review of Educational Research*, 75, 247-284. doi:10.3102/00346543075002247
- Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Willig, A. C. (1985). A meta-analysis of selected studies on the effectiveness of bilingual education. *Review of Educational Research*, 55, 269-318. doi:10.3102/00346543055003269
- Wong-Fillmore, L., & Valadez, C. (1986). Teaching bilingual learners. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 648-685). New York, NY: Macmillan.
- Zwiers, J. (2007). Teacher practices and perspectives for developing academic language. *International Journal of Applied Linguistics*, 17, 93-116. doi:10.1111/j.1473-4192.2007.00135.x
- Zwiers, J., & Crawford, M. (2011). *Academic conversations: Classroom talk that fosters critical thinking and content understandings*. Portland, ME: Stenhouse.

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9. Literacy Instruction for Students with Intellectual and Developmental Disabilities

Michelle A. Duffy

Abstract

This chapter addresses research-based literacy instruction for students with intellectual and developmental disabilities. It begins with a discussion of these disabilities, highlighting some common impairments that exist across such disability labels which can make literacy learning a challenge. Examples are provided that outline ways to address literacy skills, specifically in the area of reading. In addition, this chapter invites teachers to consider the ways in which traditional forms of literacy instruction can result in barriers to some students' participation in literacy learning and encourages finding ways to remove such barriers so that all students, including those with more significant forms of disability, can benefit.

Learning Objectives

After reading this chapter, readers will be able to

1. define what it means to *presume competence* in the learning potential of students with intellectual and developmental disabilities, and discuss the significance in doing so;
2. identify common barriers to literacy learning that often exist in classroom settings for students with intellectual and developmental disabilities and describe ways to remove these barriers;
3. discuss evidence-based ways to instruct students with intellectual and developmental disabilities in phonemic awareness, phonics, comprehension, vocabulary, and fluency;
4. design instructional reading activities and experiences for students with intellectual and developmental disabilities that effectively meet their needs in skill development while also maintaining their meaningful participation in the inclusive literacy classroom.

Introduction

Students with intellectual and developmental disabilities have generally been taught literacy using a curriculum focusing on functional life skills (Katims, 2000). Through functional skills curricula, students are frequently taught to recognize and write a limited number of the sight words to support their participation in the community or at work (Mosley, Flynt, & Morton, 1997). For example, a student might be taught to recognize the words *danger* and *exit* for safety purposes and the days of the week to read a work schedule. Although learning such words would be beneficial, a functional skills approach to literacy instruction does not equip students with the skills needed to identify words beyond the specific sight words they have been taught. This inhibits their abilities to read and write for other purposes, and therefore, limits their opportunities to take part more fully in their communities (Copeland & Keefe, 2007). Students with intellectual and developmental disabilities

may not be afforded other types of literacy instruction because it is often believed that they are incapable of learning other, more sophisticated aspects of literacy (Kluth & Chandler-Olcott, 2008).

According to Joseph and Seery (2004), “The potential for individuals with [intellectual disabilities] to grasp and generalize literacy skills has been underestimated by many educators and researchers” (p. 93). Although research is still limited in the area of higher-level literacy instruction (i.e., literacy instruction that extends beyond a functional skills approach) for students with intellectual disabilities and developmental disabilities, a number of studies have shown that students with such disabilities have learned to decode words, comprehend narrative and expository texts, and write for expression (e.g., Allor, Mathes, Roberts, Jones, & Champlin, 2010; Conners, Rosenquist, Sligh, Atwell, & Kiser, 2006; Pennington, Stenhoff, Gibson, & Ballou, 2012).

Up until quite recently, it has been difficult to determine what constitutes good evidence-based literacy instruction for students with intellectual disabilities and developmental disabilities (Lemons, Mrachko, Kostewicz, & Pattera, 2012). This difficulty is largely because much of the research done on best reading practices has not included this population of students. Further, conventional wisdom once suggested that students with intellectual and developmental disabilities might need qualitatively different instruction than their peers without disability labels. It makes sense though, that on some level, the same type of high-quality instruction that works with other struggling students should be beneficial to any student, despite disability label. Researchers have recently begun to test this premise, and the results are promising. In this chapter, you will learn more about literacy instruction for students with intellectual and developmental disabilities and how to devise lessons to meet their individual needs in reading.

Defining Intellectual Disabilities (ID)

The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5; American Psychiatric Association, 2013) defines an *intellectual disability* as “a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains” (p. 33). In other words, it is a disorder that forms before age 18 that affects a person’s intellectual development and ability to effectively use life skills. The term *intellectual disability* has replaced the term *mental retardation* in this edition of the DSM-5. Intellectual disabilities may occur alone or as a part of genetic syndromes or other developmental disabilities (see below) such as Down syndrome, Prader-Willi Syndrome, or autism spectrum disorder (ASD).

Defining Developmental Disabilities (DD)

According to the Center for Disease Control and Prevention (CDC, 2013), developmental disabilities “are a group of conditions due to an impairment in physical, learning, language, or behavior areas. These conditions begin during the developmental period, may impact day-to-day functioning, and usually last throughout a person’s lifetime” (para. 1).

In some schools these terms are used interchangeably; however, there is a difference between them. Developmental disabilities encompass intellectual disabilities. That is, intellectual disabilities are considered a type of developmental disability, but developmental disabilities also include other disabilities that are fundamentally physical in nature, such as cerebral palsy (American Association on Intellectual and Developmental Disabilities [AAIDD], 2013).

Although these common definitions are used in diagnosing ID and DD, it is important to use these definitions with caution, as they provide only one perspective on such disabilities, mostly in line with a medical model perspective which tends to have its focus on impairments and treatment of the individual (Thomas, 2002). Although the medical model perspective has much to offer toward the health and well-being of individuals with disabilities, there is a push from a number of educational researchers to shift thinking about disability from a medical model to a social model. A social

model of disability recognizes that while individuals may have impairments, it is society that needs to change, as society “creates” disability by denying those with disabilities equal participation in their communities (Couser, 2002). Kluth and Chandler-Olcott (2008) explain this notion in relation to individuals with autism:

Although many individuals with autism share that “it” is real—that they do experience things in different ways, that their bodies are uncooperative or that they have sensory or communication problems—many of these same individuals indicated that autism is, at least in moments, “created” by an inflexible society. Therefore, people may feel more or less challenged on any given day based on whether appropriate supports are provided for them or whether they are expected to communicate, behave, move, or interact in a conventional way. (p. 4)

Another point to consider is that there is wide variation among individuals with ID and DD. No label is ever sufficient to describe the intricacies, needs, abilities, or potentials of a human being. In fact, society has been wrong many times in its understanding of individuals with disabilities and assumptions about what they might be able to accomplish. As teachers, disability labels can help us consider some of the different needs our students *may* have; however, we should always take our understanding of our students from what they show us about themselves and what we are able to figure out from careful and flexible assessment of their needs, not just from textbook definitions of their disabilities.

Changing Perspectives

There is no doubt about the importance of literacy in our society. Among other things, being literate increases one’s ability to learn independently, to gain and maintain employment, and to care for oneself. Access to literacy instruction, therefore, is imperative. Too often, however, educators and other adults in the lives of students with ID and DD have assumed that these students would not be able to benefit from literacy instruction because they view the tasks involved to be too complicated or unnecessary for students with ID and DD to understand or perform. This view has led many educators to forego literacy instruction for the children or to address it in superficial ways.

Presuming Competence

The first step in helping a child with ID or DD to become literate is to presume competence (Biklen & Burke, 2006) in his or her abilities to gain such knowledge and skills. This means to put aside doubts and preconceived notions about what a student may be able to accomplish based on a student’s label of disability, estimates of IQ, or assumed limitations and instead, teach as if the child will learn. Put another way, to presume competence in students is to act on the belief “that all individuals can acquire valued skills if given appropriate structures and supports” (Copeland & Keefe, 2007, p. 2).

Literacy Initiations and Access to Instruction

While many students with ID and DD interact with texts in traditional ways, some students with such disabilities may interact with texts in ways that seem unusual or different than how students without such disabilities interact with texts. For example, some students, particularly those with autism spectrum disorder (ASD), may be interested in a book’s texture or fascinated by how a book looks when it is spun around. Other students may be interested in and insist on reading books on one specific topic for a substantial period of time. Take for example the ways in which Steven, a boy with ASD and an intellectual disability, reads for information:

He had with him, as always, several different public library books, all related to butterflies and insects. He laid three of the books, opened, on the floor, then centered himself among them, glancing at each of the exposed pages. He then flipped to the next page of each book and repeated the process. (Kliewer & Biklen, 2001, p. 5)

Students like Steven are sometimes dismissed as readers because their teachers misinterpret their unique ways of interacting with texts as indications that they are not attending to and/or are not ready for instruction involving the written word. Others feel compelled to restrict students' access to texts that they worry might be topics of overfocus, insisting that the student read something other than books about their favorite subjects. However, students' interactions with texts should be welcomed despite differences. A child's spinning of a book or investigation of the book's texture should never be taken as a sign that the child is not ready for literacy instruction. Nor should we avoid inviting them to use texts in more conventional ways. On the contrary, students will benefit from learning to use texts in the intended fashion. An important understanding, though, is that there is nothing wrong with interacting with texts in unusual ways. As long as a child is interested in texts, teachers should use the child's interactions as a starting point for further invitations to literacy growth and also encourage the child to interact with texts in ways that are pleasing to them.

Students with ID and DD can learn literacy skills, but a pitfall of many educators in helping the students attain literacy is to focus only on early or basic literacy skills in the absence of other more meaningful, generative, and socially-based forms of literacy. For example, a student who has not mastered the alphabet might not be invited to respond to read-alouds through discussion, drama, or art, and may be excluded from story time altogether. This is because it is often thought that students will not be able to benefit from other literacy activities until early skills are mastered. This assumption is incorrect, however, and can be detrimental to student learning. One does not need to be able to read words or even identify letters to be able to take part in classroom read-alouds and response activities, and much can be learned about literacy through taking part in such activities. Through read-alouds, for instance, students are provided with a model of fluent reading, how a story is structured, and what the purposes are for various kinds of texts. While the teaching of skills is important and should not be denied to students with disabilities, reading must also not be construed as a linear and rigid process for which only some students are able to participate (Kliewer & Biklen, 2001).

Augmentative and Alternative Communication (AAC)

Many students who have ID or DD also have complex communication needs (CCN). Some students may not use speech to communicate. Others may not have reliable speech, that is, speech that consistently and accurately reflects the message the speaker wishes to convey (Broderick & Kasa-Hendrickson, 2001). Some students may have reliable speech, but their speech may be difficult for others to understand. Teaching literacy skills to a student who is not verbal or who has unreliable speech can seem daunting. As teachers, we often expect students to communicate their knowledge through speaking, particularly as students learn to read. Think about how you would work with a typically-developing kindergartener on letter sounds. You would likely show the child a letter on the chalkboard or on a flashcard and ask the child to respond orally with the sound of the letter. Similarly, when meeting with a student to assess his or her reading ability, you would likely want to hear the child read a passage so you could make note of his or her strengths and struggles during oral reading. How then, can a teacher approach such important learning activities and assessments when working with a child who does not speak? How could the child show a teacher his or her competence in reading? How can a teacher determine a child's understanding as new skills are taught?

Augmentative and alternative communication (AAC) refers to the techniques and supports used by individuals with limitations in spoken language to enhance their ability to communicate. While these supports are often bundled under the term AAC, there are important differences in

augmentative versus alternative communication. *Augmentative* communication refers to the techniques and supports used *in addition to* speech, spoken sounds, or gestures, while *alternative* communication refers to techniques or supports used *in place of* speech and gestures (Copeland & Keefe, 2007). Numerous options for AAC exist, including “manual sign language, as well as non-electronic and electronic communication devices and software options” (p. 132), which vary in complexity (e.g., high-tech, low-tech) and expense. A common high-tech AAC device used by students is the Dynavox, which is a computerized touchscreen that allows users to select words and symbols indicating what they would like to communicate. The device, in turn, speaks out these choices digitally. Lower-tech supports might include teacher-created boards with letters, numbers, and/or pictures made with clip art to which students can point to communicate their needs and responses.

Students with ID and DD can often benefit from AAC in literacy learning. In deciding which AAC supports to use, a teacher must consider the particular needs of each student. Not all supports or devices will be appropriate for all students with disabilities. It would not be appropriate, for example, to require a student to use a particular support simply because it is less expensive or already on hand. In addition, some students with limited speech may already be making use of certain AAC devices in their daily lives. If this is the case for a particular student, finding a way to incorporate that device into the child’s literacy learning will be of utmost importance. For students who have difficulty with reliable speech or producing speech that is readily understood by others, finding a way for the students to communicate their knowledge without the need to speak can be beneficial. The ways in which AAC can be used to supplement and enhance a student’s literacy learning are innumerable. Several examples will be given throughout the next section on comprehensive literacy instruction for students with ID and DD.

Comprehensive Reading Instruction for Students with ID and DD

This section will provide ways to instruct students with ID and DD on particular skills that are important for growth in reading. The skills have been presented separately by area so that you can both understand the main processes of reading and learn ways to teach the skills effectively when working with students. However, it is important to recognize that reading should not be treated and taught as a set of unrelated sub-skills, nor do students need to master skills in one area to take part in instruction in another area. Students must have the opportunity to experience literacy in its cohesive sense *in conjunction* with opportunities to work on needed skills. Students of all needs and abilities need time to experience hearing and responding to good literature, to play with language, and to take risks with new ideas and conventions. They must also be given appropriate instruction and supports on their way to learning the conventions of literacy so that they too can interact with it meaningfully.

In 1997, Congress asked the National Institute of Child Health and Human Development (NICHD) to work in conjunction with the Department of Education to assemble a panel whose task would be to review all of the available research on teaching children to read and make recommendations for effective practices.¹ This panel summarized the findings in what is known as the Report of the National Reading Panel (NRP; National Institute of Child Health and Human Development [NICHD], 2000), which outlined the five areas as crucial for students to develop to become good readers: phonemic awareness, phonics, comprehension, vocabulary, and fluency. Although the NRP did not focus on students with ID and DD, other researchers have begun to investigate these areas in relation to students with ID and DD and have determined that these same areas should be addressed when teaching reading to students with more significant forms of disability as well (Allor, Mathes, Roberts, Cheatham, & Al Otaiba, 2014; Beecher & Childre, 2012). Sometimes it can be difficult to know how to teach these important aspects of reading, given a student’s difference

in memory, mobility, and/or speech. This section will give you some ideas for approaching these topics using research-supported strategies.

Phonemic Awareness

Phonemic awareness is the understanding that spoken words can be broken down into individual sounds. Words are spoken as a single pulse of sound. When we say the word *cat*, for instance, we do not break the word into its individual sounds. To read words, however, a student must understand that the letters in words represent individual sounds. Before that can happen, a student must be aware that there are individual sounds in words. These individual sounds are called *phonemes*. In the case of *cat*, the phonemes are /c/, /a/, and /t/. We must help a child become aware of phonemes so that letter-sound correspondences will make sense to the child. Developing this awareness may seem simple to an adult with good literacy skills, but for a child learning to break apart sounds in spoken words for the first time, it can be surprisingly challenging (see Chapter 3 for coverage of this topic in more depth).

Phonemic awareness instruction for students with ID and DD

Recent research has shown that students with ID and DD can benefit from similar types of explicit (i.e., direct and structured) instruction in phonemic awareness used with other students who need extra support in developing this skill. However, to be beneficial, the instruction may need to be modified to be more concrete, such as using objects as a visual cue, or providing more than one mode of learning, such as incorporating sign language in addition to verbal instruction (Beecher & Childre, 2012). For example, when bringing students' attention to the initial sounds of words beginning with /p/, it might be helpful to set out a small toy pig or make the sign for *pig* to give the student a concrete visual reminder of the sound being learned. It has also been found that students with ID and DD may need a longer amount of time to acquire phonemic awareness skills (Allor, Mathes, Roberts, Jones, & Champlin, 2010).

In the case of a child who does not have reliable speech and/or bodily control, more creative ways are needed to help the student demonstrate his or her knowledge and understanding. Imagine for a moment working with a child who has limited reliable speech. The student can sometimes communicate a sound verbally; however, he often cannot produce the sound he is thinking of accurately enough for us to be certain that he understands. Instead of requiring the child to speak his responses aloud, one can create response boards to allow the child to point out his answers (Light & McNaughton, 2012).

Imagine that you would like your student to be able to blend three phonemes (individual sounds) together to blend a word. Since the student has difficulty producing speech, you will want to use pictures to which the student can point. It is easy to create your own set of picture words on card stock or you can find cards that are commercially available. Next, use the picture cards to model how phonemes can be blended into words. To begin, show the child a picture, for example, of a pig. Start by saying, "Here is a picture of a pig. Listen to me say the sounds in this word. /p/ /i/ /g/... pig. Do you hear the sounds I am saying? /p/ /i/ /g/... pig. I can break apart the sounds in the word pig, like this /p/ /i/ /g/. Then I can put them back together. /p/ /i/ /g/ is pig!" You would continue this using several, clear examples. You could also cut the picture of the pig into three pieces, moving each to present a sound.

Next, you would introduce an activity to determine if the child can identify a word given its phonemes. To do this, you can set out three picture cards in front of the child (see Figure 1). First make sure the child knows what each picture represents by pointing to each and naming it: "Here is a dog, cat, and pig." This is an important step so that the child knows that the picture of the cat, for example, is indeed a cat and not a kitten. You may need to repeat the words, depending on the student's memory needs. Next, you tell the student that you are going to give him three sounds that

when put together will make a word. Ask him to point to the word you are making. You would then say, “/p/ /i/ /g/” and determine whether the child can select the appropriate response.

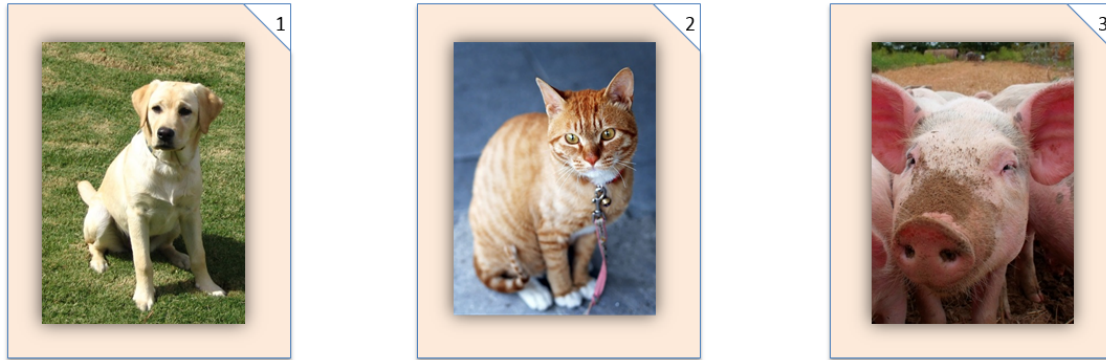


Figure 1. Picture cards for phonemic awareness activity.

As the child progresses in the ability to blend phonemes, you can make the work more challenging by requiring attention to similar phonemes rather than the very different phonemes featured in the previous example (Light & McNaughton, 2012). For example, you may wish to have a student work on attending to differences in medial (middle) vowel sounds in words. In this case, you would use three words that have the same letter sounds except for the middle sound, such as *bug*, *big*, and *bag*. Notice how each of these words has /b/ as the initial phoneme and /g/ as the final phoneme. Your modeling in this situation would deliberately draw the child’s attention to the change in vowel sound between such similar words. To assess the student’s understanding, you would again give the student three pictures from which to choose that correspond with our words and follow the same process described above. If you say /b/ /a/ /g/, but the child points to the bug, it indicates that the student may have trouble attending to the middle sound in the words and would require further instruction and practice in this area.

Students with unique needs may need modifications to the above suggestions. For example, a student showing considerable difficulties with fine or gross motor skills or vision may need larger cards with which to work. If a child is having difficulty with the process, be sure that it is not the physical aspect of the task that is getting in the way. If there are barriers to the student’s participation, think creatively about or consult with others regarding how the task could be modified so that the child could successfully (but still meaningfully) take part.

There are numerous other phonemic awareness lessons and activities that can be done to help students acquire this important literacy skill. Above is just one example of a way in which to teach and assess phoneme blending. See Table 1 for some other activities that are likely to be helpful when teaching phonemic awareness. Given the example above, consider how these activities, too, could be modified so that students with speech and/or motor differences could participate.

Table 1. *Phonemic Awareness Activities and Examples*

Activities	Examples
Sorting words by initial, medial, or final phoneme	Give students 10 picture cards in which the pictures end with the sound /g/ or /d/. Have students sort the words into two categories by ending sound.
Identifying words with a particular phoneme	Draw students’ attention to the first sound of a word, e.g., “Fan starts with /f/.” (Be sure to say the letter sound and not the letter name.) Ask students to come up with words that start with the same sound.

Activities	Examples
Segmenting words into individual phonemes	Say a word aloud to students (e.g., sit). Demonstrate how to break the word into its individual sounds (i.e., /s/ /i/ /t/). Now give students some words to break into individual sounds. Guide students as necessary.
Identifying a word after removing or adding a phoneme to it	Say to students, “Listen to this word: pit. What happens if we take away /p/?” (Be sure to say the letter sound and not the letter name.) Demonstrate how the word will now be: it. Now go through similar words with students one word at a time.
Creating a new word by replacing a phoneme in a given word	Say to students, “Listen to this word: cat. If I take away /c/ and put /b/ in its place, we get bat. Now let’s change /b/ to /s/. What word do we get?” (Be sure to say the letter sounds and not the letter names.) Guide students as necessary.
<i>Note.</i> If a student does not seem to be able to attend to the phonemes in the words despite instruction, you may need to start with earlier skills. Provide the student with many opportunities to play and experiment with more general sounds in language, such as rhymes, syllables, and alliteration.	

Phonics

Phonics is the study and instruction of how letters and combinations of letters represent the individual sounds (phonemes) in words and how these sounds are blended together to make words. In the English language, we have 26 letters that are used in various combinations to represent approximately 44 phonemes. Studies have shown that for students who have difficulty learning letter-sound correspondences, explicit and systematic phonics instruction is necessary (NRP, 2000). These studies have mostly been conducted with students who have learning disabilities; however, the same outcomes have been found in newer research including students with ID and DD as well (e.g., Riepl, Marchand-Martella, & Martella, 2008; Lemons, et al., 2012). Explicit and systematic instruction in phonics means that students are taught specifically about letter-sound correspondences through carefully planned instruction. The instruction also includes modeling, along with opportunities for teacher-guided practice, beginning with those letter-sound correspondences that are most common and useful in beginning words (e.g., a, s, ch) and proceeding to those that are more complex (e.g., ow, ur, ey, -tch). Students are not expected to figure out these patterns on their own. To become adept at using letter-sound correspondences to decode, students must have many opportunities to practice using letters and letter combinations to represent the sounds of language. There are many games and activities that can be used with students to help them practice these skills in an engaging fashion (see Chapter 3 of this textbook for more examples).

Phonics instruction for students with ID and DD

To decode an unknown word, a child must be able to identify the correct phonemes for each of its letters, hold the phonemes in memory in the correct order, and then blend the sounds together to make a word. This can be a challenging task for any beginner but can be particularly difficult for students with ID and DD because they may have difficulty with short-term memory and/or initiation of spoken language or movement. For students with short-term memory difficulties, decoding can be very challenging because the students may have difficulty holding on to the sounds in order while decoding. By the time the students reach the ends of the words they are trying to figure out, it is common for them to have forgotten the beginning sounds (WETA Washington, DC, 2007). Additionally, many new learners find it helpful to sound out words aloud while simultaneously pointing to each letter; however, if a student cannot produce sounds or point to the letters on a page, decoding can prove quite a challenge for these reasons as well. These are only some of the issues that may arise that complicate the decoding process for students with ID and DD, but with creative means, barriers to students’ participation in phonics instruction can be reduced.

For a child who has significant short-term memory difficulties, it is necessary to reduce the memory load for certain tasks (Allor et al., 2010). For example, when teaching phonics, it is helpful to begin with simple two-phoneme words, such as *at*, *up*, and *it*. As the child becomes more adept at decoding these and has practice holding phonemes in his memory, the ability to decode longer words will likely increase. Further, as time goes on, many students will be able to “chunk” information that they have learned into retrievable pieces that will lessen the burden on their memories. For example, the blend *st* in words such as *stop* and *past* will become easily recognizable with practice over time so that a student will not have to deliberately think about each phoneme (/s/ and /t/) each time it is encountered in a word. That is, the student’s recognition of the word part will become automatic, and thus allow more attention to be paid to decoding newer or more difficult letter combinations.

A method for helping students with short-term memory problems learn to decode is *Additive Sound-by-Sound Blending* (Moats & Hall, 2010). In this technique, instead of sounding out all of the letters in a word in sequential order from left to right, and then blending them together, which is a typical blending strategy (e.g., /c/ /a/ /t/ → /cat/), the letters are blended one by one as a student moves through the word. The teacher writes the first two letters of a given word for the student to see and models how to blend those first two sounds. The teacher then writes the third letter of the word and demonstrates how to blend the first two sounds with the third sound. This continues until the last sound is blended and the word is identified. For example, in the word *stop*, the teacher would demonstrate how to blend the word, sound-by-sound, as follows: /s/, /st/, /stɔ̃/, /stop/. Each time a new letter is added, the reader starts at the beginning so that he or she has the opportunity to rehearse the previously blended phonemes as a unit, increasing the likelihood that the phonemes will be retained in memory when the end of the word is reached. With time, students can be guided to use this strategy independently.

For students who have difficulty with speech or movement, it may be necessary to change instructional materials or the way we ask students to interact with the materials we use for decoding instruction. It is helpful to increase the font size of traditional print materials if the fine motor skills required to move from one letter to the next when finger pointing is a challenge. It may also be helpful to assist students in pointing to each subsequent letter in a word by gently guiding their hands; however, it is important to make sure that a student is comfortable with this approach before attempting it, as some students may be extremely uncomfortable with physical touch, and creating discomfort will defeat the purpose of the activity. If a student has trouble with speech while decoding, we can say the sounds for the student. As the student points (or you guide the pointing), say each sound as you move through each grapheme in the printed word. Even though the student is not doing the physical process independently, with practice, he or she can still learn the concepts necessary to decode words silently to themselves while reading.

Students who experience difficulty with short-term memory, speech, and movement may also benefit from working with various computer programs and tablet/smart phone applications to practice decoding skills. Numerous programs and applications exist that guide students in learning to segment and blend phonemes (e.g. L’Escapadou’s *Montessori Crosswords*, an application for iPhone/iPad) or that will read unknown words in online stories for students, sometimes even breaking up words into their individual phonemes, to demonstrate how letters represent the sounds of language (e.g., Starfall Education’s *Starfall-Learn to Read*). The extent to which students can use these programs independently will vary; however, again, students can interact with the programs with a teacher when guidance is needed. See Table 2 for a list of selected iPhone/iPad applications that specifically target decoding skills.

Table 2. Selected Phonics Applications for iPhone/iPad

Application	Developer
<i>Montessori Crosswords</i>	L'Escapadou
<i>Bob Books Reading</i>	Bob Books Publications
<i>Hooked on Phonics Learn to Read</i>	Hooked on Phonics
<i>Starfall Learn to Read</i>	Starfall Education
<i>Simplex Spelling Phonics series</i>	Pixwise Software
<i>ABC Reading Magic series</i>	Preschool University

Overreliance on memorization

Because students with ID and DD have so often been taught to read by being asked to memorize words, you may encounter students who rely exclusively on this method of word identification. Although some students have been successful in learning to read to a degree with this approach, problems arise as students attempt to read more challenging texts. As text difficulty increases, complicated, unique, and multisyllabic words become more common, and one needs a reliable decoding strategy to know how to read unknown words (Copeland & Keefe, 2007). We cannot expect children to simply memorize every word that they may one day encounter, or we run the risk of relegating them to a minimum level of reading ability.

When students are used to reading solely or almost solely through the recognition of sight words, it can be difficult to teach them to rely on letter-sound correspondences to decode words. This author once worked with a student who had memorized so many words, she could read nearly fluently at the fourth-grade level. However, the student had no strategy for identifying unknown words beyond looking at the first letter of a word and guessing. Despite this student's ability to recognize certain lengthy words by sight, she could not decode unknown words with more than two letters. Interestingly, she could not practice newly learned letter patterns with simple words such as *bat* or *hug*, as she had memorized all of them, and therefore did not have to use her new decoding skills to read them. To encourage the student to use phonics knowledge to decode words, the student had to be instructed with non-words (or nonsense words) such as *lig* or *rup*. These words had not been memorized so she had to make use of her knowledge of phonics to figure them out. With this information, the student could eventually be taught to use the decoding strategies to figure out longer, unknown real words such as *expect* or *mis/trust*.

Comprehension and Vocabulary

The main purpose of reading is to comprehend a text's message or meaning. It is not enough to be able to decode the words on a page if those words do not mean anything to the reader. Decoding is an important aspect of learning to read because to independently read text, we must first be able to identify the words on a page before we can understand them; however, there is much more to reading than word identification.

When strong readers read, they think about what they are reading (Harvey & Goudvis, 2000; Snow, 2002). They pay attention to the message of the text. When reading fiction, strong readers consider the actions of the characters, they relate those actions to their experiences, they weigh those actions against their own values, and they make predictions about what might happen next. Strong readers do not do this consciously; it just seems to happen, and is a part of the enjoyment of the reading process. However, interacting with the text in such a way is also an imperative part of making sense of the story. When weighing a character's choices, we develop understandings of that character, including understandings that may not be specifically outlined in the text. For example, from attending to a character's choices, we can determine whether the character is good or evil, or

careful or impulsive. So much of what we understand from the text comes from thinking deeply about the reading (Pressley & Afflerbach, 1995). Strong readers also pay attention to whether or not what they are reading makes sense. When strong readers come across a sentence they do not understand, they may track back, wondering if something was misread. They may take note of vocabulary they do not know and make a decision about how to proceed (e.g., look up the word, use context to define the word, skip the word having gotten the gist of the idea).

It is sometimes thought that readers will automatically comprehend a text's meaning once they have learned to decode words, but this is not always the case for students with or without disabilities (Donin, 2004). Many students need instruction in learning how to think about what they read and how to monitor their own thinking. That is, they must learn how to become metacognitive about their reading and reading processes. Much research has been conducted and many activities created to address this learning need with students (see Chapter 4 for more discussion on this topic).

Comprehension and vocabulary instruction for students with ID and DD

Students with ID and DD bring some extra challenges when learning to comprehend text. For example, students who have difficulty with working memory, which is the ability to mentally hold and manipulate information, will often have trouble remembering what they have read, so giving them strategies to maintain information in memory is important. Students with language delays and language processing difficulties might have trouble understanding certain vocabulary. In addition, a number of students, particularly those with ASD, may have trouble making inferences if they interpret language at a literal level (Kluth & Chandler-Olcott, 2008). In addressing these skills, students should have the opportunity to read, listen to, and work with quality literature and other texts that are age-appropriate, though it may be necessary to modify some aspects of the texts based on student need (Browder, Trela, & Jiminez, 2007). It is also important to note that students with ID and DD might have trouble expressing or demonstrating their understanding, which can be misinterpreted as lack of comprehension (Kluth & Chandler-Olcott, 2008).

Recent research suggests that teaching students with ID and DD strategies to monitor their own comprehension (i.e., to become metacognitive) can be helpful (Hudson & Test, 2011; Whalon & Hanline, 2008). One way to achieve this is to conduct frequent think-alouds when reading aloud to your students (Harvey & Goudvis, 2000; Doğanay Bilgi & Özmen, 2014). During think-alouds, teachers stop reading at certain points to explain their own thinking and how they are figuring out what is going on or how they are responding to the story. For example, during a fiction read-aloud, teachers might stop to make a prediction about what might happen next. They would be explicit in talking about what was noticed in the story that has caused them to make the prediction. Similarly, for students who have difficulty with making inferences, teachers can stop at predetermined points in the text, draw students' attention to certain clues (e.g., a character's described expression or behavior), and specifically explain how such clues can help tell us about the characters. Students can be asked to actively participate during think-alouds as well. For example, you might ask the students, "What kind of face might someone make if he or she is up to something sneaky?" The students could then be encouraged to make a "sneaky" face, and then you could bring their attention to where the text refers to a "sly smile" or "shifty eyes."

Think-alouds are also helpful ways to guide students in understanding new vocabulary. You can stop after reading a sentence containing a challenging word and describe to the students how you use context to figure out the word's meaning. You can also just stop and discuss an interesting word and encourage students to use it throughout the day. Notice how think-alouds do not require any reading to be done by the students. This is a perfect example of how to get students who are currently non-readers to interact meaningfully in literacy and work on higher-level skills.

Another way to work with students on comprehension is to get students actively involved in conversations around text that they have read. One way to do this is through Reciprocal Teaching

(Palincsar & Brown, 1984). In Reciprocal Teaching, students read and then in groups take part in discussion by *predicting* what will happen next, *generating questions* about the text, *clarifying* difficult parts, and *summarizing* what they have read. Students in such groups take one of these strategies and become the groups' "clarifier," "summarizer," or other role. For example, the clarifier might explain the meaning of a challenging vocabulary word identified by the questioner and share strategies for figuring it out. Students with ID and DD may benefit from a modified form of Reciprocal Teaching (Lundberg & Reichenberg, 2013) where texts are broken into smaller portions and where students work together on one strategy at a time. Teachers can scaffold the students' strategy usage by teaching them to begin questions with question words (e.g., who, what, where) or begin summarizing sentences with a simple set of sequencing words (e.g., first, then, last). When providing instruction in inclusive groups, such modifications can be provided as well for any students who need them.

Students with ID and DD may also need explicit instruction around concepts and vocabulary terms to increase their comprehension (Knight, Spooner, Browder, Smith, & Wood, 2013). To teach concepts and vocabulary explicitly, Knight et al. suggest beginning with a topic (e.g., photosynthesis, civil rights, deforestation) and then choosing a set of words needed for comprehension of the given topic. Each of these words would then be taught individually, making definitions concrete by offering pictures or other visuals in the explanation and providing the students with both examples and non-examples of the terms. For instance, in teaching the term *precipitation*, Knight et al. incorporated pictures of clouds with rain and clouds alone. They specifically explained how only the clouds with the rain "counted" as precipitation. These authors also used graphic organizers to show the relationships between the set of words being taught, for example, placing the words *precipitation*, *condensation*, and *evaporation* on simple drawings of scenes with clouds and rain or snow, and using arrows to describe how one term led to the next. Students were then guided in their own completion of the graphic organizers.

Fluency

Another important aspect in improving comprehension is to attain fluency in reading. When a person reads with fluency, he or she can recognize words automatically, read at an appropriate pace, attend to punctuation so that reading sounds like speech, known as prosody (Rasinski, 2012), and maintain these skills throughout the length of a text, known as endurance (Deeney, 2010). Being able to read fluently allows for greater comprehension because less effort is needed in decoding the text, and therefore, more attention can be directed toward making sense of the text (Griffith & Rasinski, 2004; NRP, 2000). A common way to assess students' fluency is to measure their oral reading fluency (ORF), which involves counting the number of words a student can correctly read in a minute. There are general guidelines for expected oral reading rates of student by instructional grade level. For example, the average fluency score for students in the middle of first grade is reading 23 words correct per minute (WCPM). This increases to about 53 for average readers by the end of first grade (Hasbrouck & Tindal, 2006).

Fluency instruction for students with ID and DD

Measures of ORF have been used to assess the fluency rate and fluency growth of students with ID and ASD, and such measures are appropriate when students' disabilities do not interfere with fluent speech. For students who do not have reliable speech or for whom the physical act of speaking creates difficulty, ORF is not likely to be the best measure of these students' reading fluency. Remember, the purpose of achieving fluency in reading is not to be a great oral reader, per se, but to read easily enough that there is thorough comprehension of the text. A student may not be able to read fluently aloud, but this does not mean that he or she cannot process text fluently in her mind. How do we know if students are reading fluently during silent reading if we cannot hear them read? Certainly determining this can be tricky, but it can be done. The *Qualitative Reading Inventory-5* (Leslie

& Caldwell, 2011) provides passages for which both ORF and silent reading fluency (SRF) can be determined. In giving an SRF assessment, a student's reading is timed, and the evaluator asks the student to indicate when he or she is finished, and the number of words per minute can be calculated. To be sure that the student has actually processed the text, you can ask the student to respond (through AAC or other means) to a quick literal comprehension question or two.

The downside to using SRF measures is that you will not get the same information about the types of struggles the student is having in decoding words or in phrasing that an oral reading fluency measure would provide, since you cannot hear the student read. Therefore, deciding which measures to use will be a matter of thinking critically about the students' needs and what precisely it is you are trying to assess. For example, for a student with some reliable speech, it might make sense to have the student do a short read aloud for which you can do an analysis of her mistakes, and then provide the silent reading task to assess silent reading fluency.

There is, of course, more to fluency than assessment. Once we have determined students' reading rates, we will need to provide appropriate instruction. If a student's rate is low, he or she may need more instruction in identifying words accurately and automatically. Therefore, interventions in decoding and recognition of irregularly spelled words will likely be beneficial. However, as discussed, fluency encompasses more than accurate decoding. For any student, with or without disabilities, providing a model of fluent reading is important (Griffith & Rasinski, 2004). Students must be given the opportunity to hear books and other texts read aloud by expert readers to begin to understand how fluent reading should sound.

Another way to provide instruction in fluency to students with ID and DD is to have students reread texts after providing corrective feedback on areas in need of growth (Hua et al., 2012). Begin by having students read a text at their highest instructional reading levels (i.e., the highest reading level at which they can read without frustration and where errors do not have a strong negative impact on the students' comprehension), taking note of word errors and timing them. Next, correct the word errors making sure they can correctly identify the words. Discuss with them what you noticed about their reading. Do they read word by word or in few-word phrases? Do they attend to punctuation and read with expression? Choose an area to bring to their attention and explain the adjustment you would like made. Model the adjustment if necessary. Next, have them reread the same text with the new skill in mind twice, again making note of word errors and timing them. This method will allow you to keep track of their WCPM over readings and provide direct instruction related to any particular areas of need.

For students who have substantial issues in developing reading fluency or who need to access texts above their individual reading levels, AAC can be used to provide accommodations. For example, if a student needs to read a text for a science class that is too difficult for him or her to read fluently and independently, text-to-speech software can be used to help that student gain access to the text.

Summary

Until quite recently, students with ID and DD have been taught literacy skills through a functional skills curriculum, and have often not been offered access to instruction to help them learn to decode words, read with fluency, and comprehend texts. However, recent research has shown that students with ID and DD can benefit from similar types of research-based reading instruction that is recommended for students without ID and DD.

Planning beneficial, appropriately balanced literacy instruction for students with ID and DD is not easy, but is possible. Educators must be sure not to reduce student learning to only a basic skills approach, but instead, find a way to incorporate skills into comprehensive literacy learning that includes, among other important aspects, access to quality literature, student discussion, and

active participation. In addition, educators must be able to think about all of the needs and abilities their students bring to the table and orchestrate the learning of each individual child through careful planning and creativity. Educators must also find ways to break down barriers to students' participation in literacy learning through modifications to materials and teaching approaches and through the use of AAC as appropriate.

Questions and Activities

1. A student with autism is going to join your second grade class. You find out that he does not speak and when he is given books, he often tears the pages. Explain why it is important to presume competence in his literacy learning abilities, and describe some ways to remove barriers from this student's participation in literacy learning.
2. Create a lesson on early phonemic awareness for a student with short-term memory deficits and low vision. Be sure to structure your lesson so that she will get the most out of the instruction.
3. You have a student in your class who reads fluently at grade level; however, when you ask her a question about the reading, she seems unable to answer. What are some reasons that might explain the student's difficulty in answering? What might you do to determine whether her difficulty is due to an issue with reading comprehension, other reasons, or a combination of both?
4. Given the situation in question 3, let's say that you determine that the student is having trouble comprehending what she has read. Discuss some ways you can help improve her reading comprehension.

Web Resources

- A Spectrum of Apps for Students on the Autism Spectrum http://www.ocali.org/up_archive_doc/Spectrum_Apps_ASD.pdf
- Early Intervention for Young Children with Autism, Cerebral Palsy, Down Syndrome, and Other Disabilities <http://aackids.psu.edu/>
- Literacy Instruction for Individuals with Autism, Cerebral Palsy, Down Syndrome, and Other Disabilities <http://aacliteracy.psu.edu/>
- A Chance to Read <http://www.readingrockets.org/shows/launching/chance>

References

- Allor, J. H., Mathes, P. G., Roberts, J. K., Cheatham, J. P., & Al Otaiba, S. (2014). Is scientifically based reading instruction effective for students with below-average IQs? *Exceptional Children, 80*, 287-306.
- Allor, J. H., Mathes, P. G., Roberts, J. K., Jones, F. G., & Champlin, T. M. (2010). Teaching students with moderate intellectual disabilities to read: An experimental examination of a comprehensive reading intervention. *Education & Training in Autism & Developmental Disabilities, 45*, 3-22.
- American Association on Intellectual and Developmental Disabilities (AAIDD). (2013). Frequently asked questions on intellectual disability. In *Definition of Intellectual Disability*. Retrieved from <http://aaid.org/intellectual-disability/definition/faqs-on-intellectual-disability>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

- Beecher, L., & Childre, A. (2012). Increasing literacy skills for students with intellectual and developmental disabilities: Effects of integrating comprehensive reading instruction with sign language. *Education and Training in Autism and Developmental Disabilities, 47*, 487-501.
- Biklen, D., & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education, 39*(2), 166-175. doi:10.1080/10665680500540376
- Broderick, A., & Kasa-Hendrickson, C. (2001). "Say just one word at first": The emergence of reliable speech in a student labeled with autism. *Journal of the Association for Persons with Severe Handicaps, 26*(1), 13-24. doi:10.2511/rpsd.26.1.13
- Browder, D. M., Trela, K., & Jimenez, B. (2007). Training teachers to follow a task analysis to engage middle school students with moderate and severe developmental disabilities in grade-appropriate literature. *Focus on Autism and Other Developmental Disabilities, 22*, 206-219. doi:10.1177/10883576070220040301
- Center for Disease Control. (2013, December 26). *Developmental disabilities*. Retrieved from <http://www.cdc.gov/ncbddd/developmentaldisabilities/facts.html>
- Conners, F. A., Rosenquist, C. J., Sligh, A. C., Atwell, J. A., & Kiser, T. (2006). Phonological reading skills acquisition by children with mental retardation. *Research in Developmental Disabilities, 27*, 121-137. doi:10.1016/j.ridd.2004.11.015
- Copeland, S., & Keefe, E. (2007). *Effective literacy instruction for students with moderate or severe disabilities*. Baltimore, MD: Brookes Publishing.
- Couser, G. T. (2002). Signifying bodies: Life writing and disability studies. In S. L. Snyder, B. J. Brueggemann, & R. Garland-Thomson (Eds.), *Disability studies: Enabling the humanities* (pp. 109-117). New York, NY: The Modern Language Association of America.
- Deeney, T. (2010). One-minute fluency measures: Mixed messages in assessment and instruction. *The Reading Teacher, 63*, 440-450. doi:10.1598/RT.63.6.1
- Donin, J. (2004). Text processing within classroom contexts. In A. Peacock & A. Cleghorn (Eds.), *Missing the meaning: The development and use of print and non-print learning materials* (pp. 33-46). New York, NY: Palgrave Macmillan.
- Doğanay Bilgi, A., & Özmen, E. R. (2014). The impact of modified multi-component cognitive strategy instruction in the acquisition of metacognitive strategy knowledge in the text comprehension process of students with mental retardation. *Educational Sciences: Theory & Practice, 14*, 707-714. doi:10.12738/estp.2014.2.1629
- Eunice Kennedy Shriver National Institute of Child Health and Human Development. (2013, October 29). *National Reading Panel*. Retrieved from <http://www.nichd.nih.gov/research/supported/Pages/nrp.aspx/>
- Griffith, L. W., & Rasinski, T. (2004). A focus on fluency: How one teacher incorporated fluency with her reading curriculum. *The Reading Teacher, 58*, 126-137. doi:10.1598/rt.58.2.1
- Harvey, S., & Goudvis, A. (2000). *Strategies that work: Teaching comprehension to enhance understanding*. Portland, ME: Stenhouse.
- Hasbrouck, J., & Tindal, G. A. (2006). Oral reading fluency norms: A valuable assessment tool for reading teachers. *The Reading Teacher, 59*, 636-644. doi:10.1598/RT.59.7.3
- Hua, Y., Hendrickson, J. M., Therrien, W. J., Woods-Groves, S., Ries, P., & Shaw, J. W. (2012). Effects of combined reading and question generation on reading fluency and comprehension of three young adults with autism and intellectual disability. *Focus on Autism and Other Developmental Disabilities, 27*, 135-146. doi:10.1177/1088357612448421
- Hudson, M. E., & Test, D. W. (2011). Evaluating the evidence base of shared story reading to promote literacy for students with extensive support needs. *Research and Practice for Persons with Severe Disabilities, 36*, 34-45. doi:10.2511/rpsd.36.1-2.34

- Joseph, L., & Seery, M. (2004). Where is the phonics? A review of the literature on the use of phonetic analysis with students with mental retardation. *Remedial and Special Education, 25*, 88–94. doi:10.1177/07419325040250020301
- Katims, D. S. (2000). Literacy instruction for people with mental retardation: Historical highlights and contemporary analysis. *Education and Training in Mental Retardation and Developmental Disabilities, 35*(1), 3–15.
- Kliewer, C., & Biklen, D. (2001). “School’s not really a place for reading”: A research synthesis of the literate lives of students with severe disabilities. *The Association for Persons with Severe Handicaps, 26*(1), 1–12. doi:10.2511/rpsd.26.1.1
- Kluth, P., & Chandler-Olcott, K. (2008). *A land we can share: Teaching literacy to students with autism*. Baltimore, MD: Brookes Publishing.
- Knight, V. F., Spooner, F., Browder, D. M., Smith, B. R., & Wood, C. L. (2013). Using systematic instruction and graphic organizers to teach science concepts to students with autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities, 28*, 115–126. doi:10.1177/1088357612475301
- Lemons, C. J., Mrachko, A. A., Kostewicz, D. E., & Paterra, M. F. (2012). Effectiveness of decoding and phonological awareness interventions for children with Down syndrome. *Exceptional Children, 79*(1), 67–90. doi:10.1177/001440291207900104
- Leslie, L., & Caldwell, J. (2011). *Qualitative Reading Inventory-5*. New York, NY: Longman.
- Light, J., & McNaughton, D. (2012, August 31). *Literacy instruction for individuals with autism, cerebral palsy, Down syndrome, and other disabilities*. Retrieved from <http://aacliteracy.psu.edu/>
- Lundberg, I., & Reichenberg, M. (2013). Developing reading comprehension among students with mild intellectual disabilities—an intervention study. *Scandinavian Journal of Educational Research, 87*, 89–100. doi:10.1080/00313831.2011.623179
- Moats, L. C., & Hall, S. (2010). *Language essentials for teachers of reading and spelling (LETRS®) Module 7—Teaching phonics, word study, and the alphabetic principle* (2nd ed.). Longmont, CO: Sopris West Educational Services.
- Mosley, V. P., Flynt, S. W., & Morton, R. C. (1997). Teaching sight words to students with moderate mental retardation. *Reading Improvement, 34*(1), 2–7.
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups* (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office. <http://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf>
- Palincsar, A. S., & Brown, A. (1984). Reciprocal teaching of comprehension-fostering and comprehension monitoring activities. *Cognition and Instruction, 1*(2), 117–175. doi:10.1207/s1532690xci0102_1
- Pennington, R., Stenhoff, D. M., Gibson, J., & Ballou, K. (2012). Using simultaneous prompting to teach computer-based story writing to a student with autism. *Education & Treatment of Children (West Virginia University Press), 35*, 389–406. doi:10.1353/etc.2012.0022
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Hillsdale NJ: Erlbaum.
- Rasinski, T. V. (2012). Why reading fluency should be hot. *Reading Teacher, 65*, 516–522. doi:10.1002/TRTR.01077
- Riepl, J. H., Marchand-Martella, N., & Martella, R. C. (2008). The effects of “reading mastery plus” on the beginning reading skills of students with intellectual and developmental disabilities. *Journal of Direct Instruction, 8*(1), 29–39.

- Snow, C. (Chair). (2002). *Reading for understanding: Towards a R&D program in reading comprehension*. Santa Monica, CA: RAND Reading Study Group. Retrieved from http://www.prgs.edu/content/dam/rand/pubs/monograph_reports/2005/MR1465.pdf
- Thomas, C. (2002). Disability theory: Key ideas, issues, and thinkers. In C. Barnes, M. Oliver, & L. Barton (Eds.), *Disability studies today* (pp. 38-57). Cambridge, United Kingdom: Polity Press.
- WETA Washington, DC (Producer). (2007). Episode 9: A Chance to read [video file]. In *Launching Young Readers*. Retrieved from <http://www.readingrockets.org/shows/launching/chance>
- Whalon, K., & Hanline, M. F. (2008). Effects of a reciprocal questioning intervention on the question generation and responding of children with autism spectrum disorder. *Education and Training in Developmental Disabilities, 43*, 367-387.

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Endnotes

- 1: For more information about the formation of the panel, please visit Eunice Kennedy Shriver National Institute of Child Health and Human Development (2013). [Return](#)

10. Twenty-First Century Perspectives on Adolescent Literacy and Instruction

Elizabeth C. Lewis

Abstract

Using a framework that includes the theories of multiliteracies (The New London Group, 1996), new literacies (Lankshear & Knobel, 2011), and multimodality (Jewitt, 2009; Kress, 2010), this chapter draws upon findings from qualitative research to provide 1) an examination of literacy skills and practices commonly associated with adolescence, as well as 2) approaches to effective literacy instruction for diverse learners at the middle and high school levels. In addition, this chapter explores the complex nature of defining the term *literacy*, particularly as it relates to teaching adolescents essential 21st century skills (e.g., collaborative problem-solving, multimodal composition) across content areas. Readers will consider how identifying and valuing the range of literacy practices in which adolescents engage—both within and outside of school—can optimize their personal literacy development and academic achievement. Examples provided throughout this chapter model and invite analysis of the benefits and limitations of incorporating these theories into pedagogy.

Learning Objectives

After reading this chapter, readers will be able to

1. describe the theories of multiliteracies, new literacies, and multimodality as they relate to adolescent literacy;
2. identify the range of diverse literacy skills and practices of adolescent students;
3. discuss the benefits of and drawbacks to incorporating multiliteracies, new literacies, and multimodality into literacy instruction for diverse populations of adolescents;
4. design learning activities that support and enhance the development of adolescent students' literacy skills through multiple modes and genres.

Introduction

We live in a multimodal world—one in which individuals must have the skills to identify, interpret, analyze, and communicate through a range of modes, media, and symbols. The ways individuals communicate at home, in school, at work, as well as other public and private places require them to possess “skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our personal and professional lives” (Leu, Kinzer, Coiro, & Cammack, 2004, p. 1572). In light of these rapid, constant advancements that require us to adapt our existing skills or adopt new communicative skills, *literacy* as the ability to read and write traditional, print-based texts needs to be redefined (see Chapter 1 in this textbook). Street (1995) proposed expanding the term “literacy” from singular to plural: *literacies*. This change signifies that

literacy is more extensive because the socially constructed systems of communication found in different cultures are broader than mere printed language.

Adolescents exhibit a broad and diverse range of abilities, exceptionalities, backgrounds and experiences. Increasingly, they are immersed in layered, multimodal experiences through which they make sense of their lives and the world around them. They negotiate information and forms of communication—many of which are Internet-based (e.g., newsfeeds, online social networks)—that will continue to grow in variety and number. These youth engage a repertoire of new literacy practices to represent identity (e.g., post personal photos on Instagram), develop social connections (e.g., text message with friends), achieve status with others (e.g., accumulate numerous “friends” on Facebook), and consider their future personal and professional goals (e.g., follow businesses and other organizations on Twitter). Adolescents are learning, exercising, and strengthening these skills mostly on their own or with peers, and not necessarily in school. This suggests they experiment with technology more on their own than learn about technology from the expertise of others, since adolescents are not necessarily provided with opportunities to engage in these new literacy practices or demonstrate their levels of proficiency with them in academic settings.

The ways adolescents use digital tools (e.g., smartphones, computers) are examples of how more multimodal, out-of-school literacies differ from the more dominant, academic literacies that students use in school. Moreover, the variety of multimedia sources (the technological forms that deliver information or entertainment such as film, video, and music) that many students engage with outside of school may have significant effects on how and what they learn while *in* school. Research exploring how youths’ out-of-school literacies coexist with more traditional academic literacies (i.e., print-based reading and writing activities) has been on the rise (Compton-Lilly, 2012; Hull & Schultz, 2002; Moje & Tysvaer, 2010). Findings suggest that integrating adolescents’ new literacy practices into instruction may align their in- and out-of-school literacies. Doing so would also enhance teachers’ abilities to better 1) address diverse learning needs and styles, and 2) prepare adolescents for social, academic and professional success.

Three theories in particular are helpful to the process of integrating secondary students’ in- and out-of-school literacy practices into instruction. They include *multiliteracies*, *new literacies*, and *multimodality*. In the sections following this introduction, these theories are defined. Examples drawn from qualitative research studies examining how the theories can be used to design instruction that supports and enhances literacy development are provided.

Multiliteracies Theory

The term *multiliteracies* was devised by The New London Group (1996), an international group of scholars from various English-speaking countries who met in New London, New Hampshire in 1994 to discuss the state of literacy teaching. Their ground-breaking work continues to challenge educators to broaden their perspectives on literacy. Members of this group argued that more traditional approaches to literacy instruction (those grounded in teaching students to read and write using print-based texts) do not accommodate the ever-growing cultural and linguistic diversity that exists world-wide.

The New London Group asserted it is necessary to develop *multiple literacies*; individuals must be able to make meaning from and through the variety of modes (defined by the Group as forms of communication) that continuously appear and shape every aspect of their lives, every day. Multiple literacies, a cornerstone of multiliteracies theory, include the ability to communicate through specific forms outlined as visual, aural, gestural, spatial, linguistic, and numerical (Cope & Kalantzis, 2000). Various national learning standards and guidelines include goals that reflect multiliteracies theory, for example the National Coalition for Core Arts Standards (2014); National Council of Teachers of English/International Reading Association (2012); *Common Core State Standards for*

English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects ([CCSS]; National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010), and Center of Applied Special Technology, *Universal Design for Learning Guidelines* (2011).

New Literacies Theory

As stated previously, the continued emergence of powerful digital technologies and new media has led to fundamental shifts in how people read, write, and communicate. New media often relate to information communication technologies (ICTs). Some examples of new media include web-based applications for designing presentations such as Prezi and Haiku Deck, interactive video games like Minecraft, and online social platforms like Twitter and Facebook. Each new ICT requires new literacy skills for its effective use. The Internet, for example, requires an increasing skill set related to reading information found on websites, writing email messages, and posting to blogs (Coiro & Dobler, 2007). Many adolescents spend considerable time in online social spaces and using multimedia applications on digital devices. These activities generate an expanding number of new literacies, such as creating and sharing personal videos using applications like Vine and Vimeo.

Other definitions of new literacies are even broader and involve reading, interpreting, and creating a variety of print and non-print texts, including modes often associated with the arts (Albers & Harste, 2007). Examples of these include photo essays, graphic novels, and spoken word poetry (see Chapter 7 of this textbook for additional examples). After-school and community-based programs are growing in popularity and provide students with opportunities to develop new literacies related to this broader definition (Chappell, 2009; Lewis, 2013; Vasudevan, Kerr, Hibbert, Fernandez & Park, 2014). Students who participate in such programs may publish neighborhood newsletters, create sidewalk art, or write for and perform in a local theater group for youth.

Multimodality Theory

Multimodality theory is informed by social semiotics—the field of study related to understanding how people construct meaning from signs and symbols in ways that reflect socially- and culturally-ascribed meanings and practices (Halliday, 1978). Examples of different modes include photography, dance, computer-based communications, painting, and written language. Multimodality specifies that communicating the meaning of an idea so that others will understand it clearly may not be possible through a single mode alone (Jewitt & Kress, 2003).

A simple example of constructing meaning from a multimodal text is a television commercial. For a person to understand what a company is promoting about its product through this medium, he or she must be able to “read” the multiple modes comprising it. These modes may include written and spoken language, gestures made by actors, music, the spatial design of the setting and/or graphics included in the commercial. It is the interplay between the modes and how one processes their meanings that helps him or her understand the commercial’s sales pitch.

Consider another example from the academic realm: even a hard-bound textbook, a more traditional form of printed text, may be multimodal if it contains visuals such as photographs, drawings, or other forms of illustrations. This same textbook may likely have been printed to meet certain standards of page layout, adding to the visual quality of the text. Thus, even a textbook can demonstrate the significance of multimodality as it pertains to communicating information.

Why These Theories Matter in the Design of Adolescent Literacy Instruction

New technologies and forms of communication promote multimodality; adolescents’ out-of-school literacy practices are increasingly varied, digitally-based, and multimodal. In light of this reality,

“important changes will be needed in schooling, in teachers, and, especially, in educational beliefs about the status/design of non-print modes as ways of understanding knowledge and representing meaning” (Miller, Thompson, Lauricella, Boyd & McVee, 2012, p. 116). This statement implies that in the formal school setting, students are often restricted to engaging in literacy practices centered on traditional print-based texts rather than a variety that would fortify their multiple literacies. Yet, the dominance of the book as the central medium of communication is becoming replaced by the governance of the screen in schools and beyond (Kress, 2010). Educators cannot discount this shift in modality. Instead, the theories discussed in this chapter provide a way for teachers to consider how new technologies and multimodal texts may be included in adolescents’ academic learning experiences in ways to meet their diverse learning needs, styles, and abilities effectively.

Implementing Multiliteracies, New Literacies, and Multimodality in Adolescent Literacy Instruction

In this section, you will learn how the theories of multiliteracies, new literacies, and multimodality can be incorporated into designing instruction that supports and enhances the literacy skills and practices of secondary students. Examples from a variety of subject areas are provided in order to show the multi- and inter-disciplinary possibilities of this approach.

As a way of framing each case included in this chapter, here is a list of general considerations teachers should keep in mind prior to and while planning lessons:

- Outline content and skills students will learn.
- Identify curricular goals and learning objectives to be addressed and assessed.
- Accommodate students’ diverse cultural, linguistic, and ability-related competencies—as well as their learning needs—when choosing resources and designing activities/ assignments.
- Collect information about students’ out-of-school literacy practices and integrate them into learning activities, assignments, and assessments.
- Consider which resources and materials are available (e.g., technology, art supplies) for use and which might be necessary to borrow or purchase.

Using Popular Culture as a Lens for Multiliteracies, New Literacies, and Multimodality

Alvermann (2012) asserts that the line between “high culture” (e.g., reading canonical works like Shakespearean plays, attending an opera) and “low culture”—a term representing “popular culture” (e.g., reading comic books, listening to pop music on the radio) has blurred (p. 214). She proposes reconsidering the idea that a clear-cut division between formal and informal learning exists. As such, research findings suggest that out-of- and in-school literacy practices co-exist within classroom settings (Sefton-Green, 2013). Instruction that connects academic content to multimodal forms of popular culture—those in which students are likely familiar—has the potential to increase their content knowledge learning. In turn, this instructional alignment with learning standards enhances students’ college and career readiness by supporting their ability to acquire and share knowledge across varied forms of communication necessary to succeed in both the classroom and workplace (NGA & CCSSO, 2010).

An approach to supporting adolescents’ development of literacy skills while attending to their learning needs can take many forms. One is to integrate video excerpts (e.g., television shows, documentaries) into instruction as a way of tapping into students’ prior knowledge when introducing new concepts. A second is to have students make connections between academic content and popular music by having them listen to songs and analyze how song lyrics relate to what they are learning. A third is for students to learn concepts or skills through multiple modes such as visual

arts, performance, or poetry. Yet another is to have students view and analyze the distinctive style of a TED Talk, the presentation format used by individuals affiliated with the organization Technology, Entertainment, Design (TED; www.ted.com). The following examples of secondary educators' classroom experiences illustrate these methods (all teachers' names are pseudonyms).

English Language Arts

This first example comes from an eleventh grade English language arts class taught by a teacher named Alicia Dowling. Part of Alicia's curriculum for this class is an instructional unit on memoir and oral storytelling. To introduce this unit to her students, Alicia first discusses elements of the personal narrative genre with them. Then, in addition to reading and analyzing written pieces by authors Sherman Alexie, Maya Angelou, and Elie Wiesel, students study the genre of oral storytelling. The aim of this two-fold approach is to provide students with the opportunity to share their own personal narratives in both written and spoken form. To provide structure for helping them accomplish the latter, Alicia uses videos found on YouTube.com to show a variety of oral storytelling methods individuals employ to share personal narratives. While watching each video, students independently complete a worksheet designed to help them evaluate the degree to which the clip reflects elements of the personal narrative genre (e.g., focuses on a significant event, includes vivid description). They then participate in a whole-class discussion about all of the clips viewed and their assessments of them.

In the next phase of this unit, students compose their own personal narratives to be shared in both written and oral form. Several drafts of each student's work undergo both peer- and teacher-review. While they complete their final, type-written drafts, Alicia prepares students for the oral storytelling of their narrative in two ways. First, for one class period students participate in improvisational exercises co-led by Alicia's colleague who teaches drama classes at the school. This instructional strategy draws upon multiliteracies theory in that it helps students develop critical gestural, spatial, viewing, speaking and listening skills. Second, students video record themselves reading their personal narratives, review the recording, and complete a formal written self-assessment of their performance. To fulfill this requirement, students can use their own devices (e.g., smartphone, computer) or borrow a digital camera provided by the school. They transfer the video recording to a flash drive or DVD—both are provided to students if needed—and submit it along with their self-assessment.

Once Alicia provides students with feedback on their recording and self-evaluation, the instructional unit concludes with students performing their personal narratives in class through oral storytelling. In the spirit of using methods traditional to this form, Alicia encourages them to memorize their work so they can focus on elements of performance, but memorization is not a requirement; students are permitted to use note cards or read from a printed copy of their story. This consideration is grounded in Alicia's recognition that her students' levels of ability and comfort with speaking publicly, particularly about their personal experiences, vary widely.

From Alicia's perspective, incorporating multimedia texts into her unit on memoir and storytelling is essential to enhancing her ability to teach these concepts to students, as well as their ability to learn them. The use of video clips from YouTube.com provides students with the opportunity to view, assess, and discuss elements of personal narrative *and* oral storytelling in ways that reading print-based examples alone may not provide. Moreover, using visual texts like these supports the literacy skill development of diverse students, such as students who are resistant but otherwise able readers, and those identified as having an educational disability (e.g., learning disability).

In addition, requiring students to video record themselves reading their personal narratives, and then evaluate their recordings, is critical to their development of literacy skills in two key ways. First, students must engage in new literacy practices using digital tools. Whether they are familiar with these kinds of technology or not, possessing skills related to them is (and will increasingly be)

necessary for personal, academic, and professional purposes. Second, in consideration of all three theories underpinning this chapter, having students analyze a visual text of their own creation serves to enhance literacy skills related to reading, viewing, listening, speaking, and spatiality.

Art

This second curricular example is from a seventh grade art class taught by David Pelham. David teaches an eight-week instructional unit centered on the essential question: *How can we represent who we are through art?* Essential questions “aim to stimulate thought, to provoke inquiry, and to spark more questions” and therefore promote the development of evaluative and critical thought (Wiggins & McTighe, 2005, p. 106). David firmly asserts that providing opportunities for students to make connections between their lives and art helps them acquire content knowledge in his and other subject areas to greater depth and breadth. Over the course of the eight weeks his students learn about key elements of art and design (i.e., color, shape, texture) while producing what he calls an “identity collage” which serves as a final project. The goal of the identity collage is for students to create a visual text that represents who they are to those who view it.

Traditionally, collage is an art form derived from the French verb *coller* meaning *to paste or glue*. Collages are created by fastening any variety of different materials onto a canvas in a free-form artistic expression of a theme, idea, person, and/or experience. Because the process of designing a collage does not have a formal, rigid set of rules to which one must adhere, it thereby “lends itself to a freeing sense of experimentation and play” (Hafeli, 2015, p. 148). David’s choice of this form for the project stems from the rich opportunity to experiment with the artistic elements it provides his students. As such, they choose from a wide assortment of supplies to create their identity collages using poster board as the canvas. Materials include words and images cut or torn out from magazines, newspapers, and brochures; pictures downloaded and printed from websites; stickers; photographs; self-created sketches, paintings, and/or drawings; fabric; and glitter and sequins.

In the first phase of the unit, David has students write informal, short-length responses to a series of prompts aimed at helping them brainstorm specific aspects of their identity. They write about their personality traits, memorable experiences, cultural background, family history, likes/dislikes, talents, hopes, dreams, fears, values, and beliefs. Though it may seem unconventional to introduce the genre of personal writing into art instruction, David views this series of responses as a blueprint to help students design their collages; these written responses guide the process of choosing which aspects of their identity they wish to represent, as well as the materials they feel will do so most effectively.

In his next phase of instruction, David shows students segments of Internet videos that highlight collage art and artists. For example, David provides an overview of this art form by having students watch a brief introductory video entitled *Amazing Collage Art* by Derek Gores. In the video, artist Derek Gores describes to viewers the basic approach he takes to create collages and demonstrates techniques that others can use in their own design processes. At the video’s conclusion, David asks his students to summarize verbally the main ideas related to collage as an art form presented by Gores. David then shows excerpts of other online videos (*Start to Finish: Collage Art Journal Page Process Video*, *Art Journal Page: Collage with Magazine Cutouts*, and *Collage Perspectives at Swarthmore College*) that model the freedom in and variety of creating pieces in this art form.

To help students decide on the different techniques they will use to create their collages, David facilitates a shared inquiry activity based on the series of videos they viewed. The method of shared inquiry promotes interpretive and critical thinking skills through the posing of three distinct types of questions about a text: factual, interpretive, and evaluative. Following this model of instruction’s basic framework, David first asks questions requiring students to recall the attributes of *collage* that they learned about (factual). Next, he poses questions that invite students to infer the mean-

ing behind what the artists state about the art form in general as well as their own artistic creations, specifically (interpretive). Finally, David asks his students higher-level, probing questions that require them to assess artists' points comparatively through their own beliefs and perspectives (evaluative).

As his students move into the hands-on phase of the unit, David engages them in small group and whole class discussions about how characteristics of different materials convey a variety of ideas, experiences, moods, and feelings. For instance, David asks his class to share points of view about what the color "blue" in all its different shades might be used to communicate or symbolize. Contributions nearly always include "the sky," "the ocean," "sadness," and feeling "peaceful." This kind of collaborative learning experience provides students with the opportunity to develop and exercise key decision-making strategies related to the design process like choosing materials based on colors, textures, and images.

When the identity collages are complete, students share their work with each other through a variation of the cooperative learning strategy known as a gallery walk. Students take turns presenting their artwork to small groups of their classmates who travel around the classroom to view and talk about their pieces with each other. David explains that this approach fosters students' development of several essential literacy skills including the ability to interpret, analyze, and discuss a variety of texts. Furthermore, his focus on providing students with opportunities to develop explicit literacy skills is complemented by his attention to ensuring they meet national core arts standards. Accordingly, David expects his students will be able to "synthesize and relate knowledge and personal experience to make art" (National Coalition for Core Arts Standards, 2014, p. 13) by the end of the instructional unit on collage.

Social Studies

The next examples are from an eighth grade U.S. History class. Social studies educator Marie Simon finds that it can be difficult for students to comprehensively understand the importance of historical events and the individuals involved in them. She attributes this to the feelings of detachment often exhibited by students who perceive the content information to be static and disconnected from their lives. To enhance her students' learning, Marie often includes multimodal resources such as video "vignettes" and songs in her lessons. In one case, to help her students understand the impact that several noteworthy figures had on the Industrial Period in the United States, she shows them several short excerpts from the History Channel's series, *The Men Who Built America*. Marie notes that her students gain a clearer understanding of the influences people like Andrew Carnegie, John D. Rockefeller, and Henry Ford had on the United States' emergence as a global manufacturing giant from watching the series. By comparing summative assessment results (e.g., end-of-unit tests), she concludes that learning content through a variety of multimodal, multimedia texts and strategies optimizes students' enduring understanding more than traditional textbook-based learning alone.

In another example, Marie implements two key strategies to enhance her students' literacy skills and content knowledge acquisition while learning about Westward Expansion in the U.S. in the 1800s. First, students participate in a simulation pertaining to the Transcontinental Railroad. Dividing her class into two teams, Marie has students "build" the railroad themselves using paper, scissors, tape and other materials. Each team starts from opposite ends of the expansive hallway outside of the classroom to lay "tracks" across the floor in order to achieve the objective of joining its half of the railway with that of the other team. To experience how difficult it was to engineer the construction of the Railroad across such an expanse of land given the severely limited means of communication at that time in history, students are only permitted to speak to those on their own team; they are not allowed to communicate or work with members of the opposite team. Marie explains that this activity requires students to employ essential skills related to reading, speaking, listening, problem-solving, and collaboration consistent with multiliteracies.

Marie's second instructional strategy facilitates students' development of *critical literacy* (McLaren, 1994). Briefly, critical literacy relates to one's ability to analyze texts from varied perspectives in order to recognize whose experiences and points-of-view are included within them, whose are excluded, and what the social, historical, and political implications of such inclusions and exclusions are. To illustrate, in order to complement what they have learned about the construction of the Transcontinental Railroad, students listen to the American folk song, *I've Been Working on the Railroad*. Next, they read its lyrics and analyze how the song illuminates both positive and controversial aspects of this historical time period in the U.S. Specifically, students analyze how the lyrics 1) represent the day-to-day exhausting work that comprised the experience of building the extensive railway system but also 2) signify racism toward African American laborers working to construct it.

Marie's attention to students' multiple literacies and incorporation of multimodal texts into her teaching further demonstrates how doing so can support adolescents' development of literacy skills essential to their learning. Infusing video excerpts, simulations, and songs into instruction can enhance students' content knowledge acquisition more deeply than using only traditional, print-based texts and materials (e.g., textbooks, worksheets). In turn, this approach serves to augment literacy skill development of students for whom learning through traditional texts and materials presents significant difficulties like, for example, English language learners or individuals with a sensory impairment (e.g., low vision or blindness).

Science

Evan Roberts, a high school physics teacher, often begins his lessons with a short one- to two-minute excerpt from popular television series such as the Discovery Channel's *Myth Busters* and the History Channel's *Top Gear*. In his perspective, having students view a physics-related concept in a real world situation like those demonstrated in episodes from these and similar series provides them with the opportunity to develop literacy skills critical to their learning. Evan chooses excerpts that illustrate concepts such as mechanical energy and Newton's Laws of Motion. After watching these excerpts, Evan's students participate in a range of learning activities related to the content presented in the video clips.

For example, to introduce the concept of velocity Evan uses a *Myth Busters* excerpt that presents a scenario addressing the question: *Which will drop faster, a bullet fired or a bullet dropped?* Students complete a Think-Pair-Share activity immediately after watching the video excerpt. Initially, students individually *think* of answers to a short set of questions prompting them to describe what they viewed. Then, in *pairs*, students use their answers and knowledge of physics to brainstorm hypotheses about the scenario presented in the clip. Finally, a whole class discussion in which each pair *shares* its hypothesis provides students with the opportunity to hone essential skills related to listening, speaking, and thinking analytically while considering the plausibility of each.

Evan capitalizes on his students' interests in popular television shows by incorporating them into his teaching. He finds that students are more highly engaged when concepts are introduced through a short video segment and that the visual representation itself also provides an important scaffold for what is usually the next phase of his lessons: a hands-on experiment conducted by the students. Working in small groups, Evan's students design and carry out an experiment to investigate the hypotheses devised during the Think-Pair-Share activity. Groups use materials including construction paper, duct tape, markers, and yardsticks to create ramps down which ball bearings can be rolled and their speed/distance measured. Utilizing technology provided by the school, students record and analyze their experiments with GoPro digital cameras. In the final stage of this lesson, Evan and his class debrief about the experiment and its results.

This example demonstrates how incorporating multimedia texts can support the development of literacy skills critical to adolescents' learning processes. Specifically, consider how having students 1) view a video excerpt of a real world example of a physics concept, 2) collaborate with classmates to devise hypotheses about it, 3) evaluate the hypotheses collectively, then 4) design experiments and debrief on the tested hypotheses provides a chance to apply content knowledge authentically, demonstrate higher engagement, and synthesize ideas arguably more significantly than textbook-based instruction alone.

Final Considerations

The instructional decisions and inclusions that Alicia, David, Marie, and Evan made while designing their lessons exemplify how the theories of multiliteracies, new literacies, and multimodality can support the literacy skill development of adolescents who have a diverse range of learning needs, styles, and abilities. In addition, it is important to note that teachers should consider several factors if they plan on implementing this framework in their own instructional design processes. Some are discussed below.

First, it is critical to have knowledge of the degree to which students have access to digital tools and technology outside of school. A common false assumption is that *all* students in classes have access to computers at home or own smart devices (e.g., cell phones, electronic tablets). Closely related to the first consideration, teachers must also understand their students' levels of access to, as well as familiarity and competence with, the kinds of technology they wish to incorporate into their pedagogy. In the English language arts example, Alicia made sure that all of her students were capable of using the device of their choice to record themselves reading their personal narratives. In addition, she ensured all students knew the process they needed to follow in order to transfer the recording to flash drive or DVD; those who were unsure met with her after school or during a free class period so she could teach them how to do so. Also, it is essential that educators provide uniform access to technological tools and resources—and, therefore, the means with which to gain experience and skills using them—to *all* students. These opportunities are all the more critical for students who have limited or no access to such resources, and the school setting may be the *only* place they gain such exposure and experience.

Another consideration essential for teachers is to consider their own levels of comfort and competence with digital tools and technology. All four teachers described in this chapter were familiar with and felt confident using a variety of technology including computers, digital cameras, and web-based resources. Not all educators may feel as self-assured or capable with these kinds of multimodal/media resources; however, instead of excluding instructional strategies, activities, and assignments that require related skills and materials, deciding to incorporate them can provide a valuable opportunity to connect with students through their out-of-school literacy practices. Inviting students to share their knowledge of and expertise with new and digital technologies provides them with a chance to share the authoritative role in the classroom and cultivates an authentic community of learners.

With regard to resources available through schools, addressing multiliteracies, new literacies, and multimodality in instructional design need not require abundant and the most up-to-date technological advancements. In Evan's case, his school district was able to provide GoPro cameras, an example of state-of-the-art technology, for classroom use; however, in David's case, though he used video excerpts of artists discussing and demonstrating *collage* to model this art form for his students, their final projects were nearly exclusively comprised of art-based materials. These examples emphasize that when educators incorporate these theoretical constructs into their instruction using a variety of strategies and materials—including those that require *no* technology—the potential to enhance literacy instruction for adolescents is significant. Teaching and learning objectives should

drive educators' decisions about which materials and resources are most appropriate to implement. Additional examples of modifications illustrating how these three theories can be incorporated into instruction are included in Table 1.

Summary

This chapter explored adolescent literacy and literacy instruction from a 21st century perspective. The three theories of multiliteracies, new literacies, and multimodality underpinned the information and analyses presented. The point that nearly all aspects of life—personal, social, academic and professional—will be increasingly influenced by new technologies and literacy skills related to them is clear, and therefore, educators must consider instructional practices that will best prepare students for present and future success.

In combination, the three theories described in this chapter are a useful framework with which to design effective literacy instruction for adolescents. Multiliteracies theory offers the perspective that as new technologies and literacy practices emerge, they require a growing variety of skills—many of which have yet to be considered. The theory of new literacies provides a complementary lens through which students' out-of-school literacy practices—particularly ones related to forms of popular culture—should be examined. Consequently, educators should find relevant ways to include them in the teaching and learning that occurs in their classrooms. Multimodality theory provides a context that represents day-to-day life as an on-going process of comprehending and communicating through the countless, prevalent modes we encounter. Finally, teachers should consider the range of strategies and resources available to them to incorporate into their literacy instruction.

Table 1. *Example Instructional Modifications Incorporating Multimodality, New Literacies, and Multiliteracies*

Discipline/ Subject Area & Grade Level	Learning Standard Addressed (with link to source)	Instructional Unit & Specific Learning Task (e.g., activity, assignment)	Suggested Materials/Supplies
Family & Consumer Sciences, High School (gr. 9-12)	FSDN1.c.18.h: Students will be able to critique the selection of foods to promote a healthy lifestyle. Wisconsin Standards for Family & Consumer Sciences	<i>Health & Wellness: Food:</i> As a whole class or small group project, students create a wiki webpage or website to inform others about how to select healthy foods and use them in daily meal preparation. Students could also include articles they have written, links to other online resources, and recipes.	Wiki and webpage creation resources (free): ^a <ul style="list-style-type: none"> • PBworks • Weebly • Wikispaces • Wix
Physical Education, High School (gr. 9-12)	Standard 3 (Overview): Demonstrate knowledge of psychological and sociological concepts, principles, and strategies that apply to the learning and performance of physical activity. 3.7 (Specific): Students will be able to explain how to select and modify physical activities to allow for participation of children, the elderly, and individuals with special needs. California Standards for Physical Education	<i>Dance:</i> Students choose a dance form from a variety learned in class (e.g., ballet, folk, hip hop, jazz) and create a short instructional video demonstrating two to three simple patterns of movement attributed to the form. Students submit a formal written summary describing one modification for each of the following individuals: a child in kindergarten, an elderly person, and a young adult with a physical or sensory disability.	Resources: <ul style="list-style-type: none"> • clothing and accessories appropriate for the dance form (e.g., tap shoes, sneakers) • digital camera • computer • teacher-selected print-based & digital resources to inform students' understanding of how to modify physical activities to allow for participation of individuals with diverse attributes/needs.

Discipline/ Subject Area & Grade Level	Learning Standard Addressed (with link to source)	Instructional Unit & Specific Learning Task (e.g., activity, assignment)	Suggested Materials/Supplies
Mathematics, Middle School (gr. 6–8)	CCSS.Math. Content.7.G.A.2: Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle. Common Core State Standards for Mathematical Practice, Grade 7	<i>Geometry:</i> To demonstrate their understanding of the geometric characteristics of triangles, students create an interactive notebook (e.g., accordion fold book, tri-fold book) to include definitions, diagrams, and images of three different types of triangles. Students list and describe the triangle types on the left side of each accordion section, while on the right side, they add diagrams, hand-drawn and/or digitally-created examples. Additional examples could be cut from magazines, newspapers, and brochures and pasted into the book.	Art-based resources: <ul style="list-style-type: none"> • construction paper • markers, colored pencils • stapler, tape • drawing paper • rulers • protractors • pencils, pens • newspapers, magazines, brochures, flyers

Note. The learning standards listed for each example have specific title indicators that range in complexity of what they signify. The standard for physical education is the simplest in that it is stated as “Standard 3” and “3.7,” respectively. The standard for family and consumer sciences (FSDN1.c.18.h) is more complex and designates the following information: FS = the discipline addressed (i.e., Foundation Standard), DN = the content area (i.e., Diagnostic Services), 1 = the specific standard indicating the knowledge or skill students are expected to acquire, c = a restatement of the specific standard in terminology more applicable to instructional planning, 1 = performance indicator to measure the degree the standard has been met, and h = the grade band (high school).

^a School district policies on students’ use of Internet-based instructional resources and digital platforms (like those listed here) should be consulted during the process of choosing one for this kind of project.

Questions and Activities

1. Create a personal inventory of (a) your learning needs/styles, and (b) the multimodality and new literacies you encounter in your daily life. Over the course of a day, keep a list of what you read, write, view, say, hear, and do that can be categorized as multimodal as you understand the term after reading this chapter. Examples could include websites you visit, advertisements you read, and even meetings you attend. After you have completed the list, read it and do the following:
 - Identify patterns of multimodality across texts, actions, words, images, etc.
 - Analyze the literacy skills and practices you employed in order to understand and communicate information across contexts (e.g., social, academic, professional).
 - Reflect on where you learned the skills and practices you enacted related to the previous bullet point. Was it in school, at home, in the workplace? In addition, from whom or what did you learn them—family members, friends, teachers, popular culture (e.g., movies, celebrities, music videos)?
 - Finally, which of your literacy skills and practices would you categorize to be your strongest and/or those you engage in most frequently over the course of a day (and weakest/engage in least)? Which ones would be privileged—and which discounted—in the traditional school setting? For any or all of your answers here, is this fair practice? Why or why not?
2. Conduct an interview with an adolescent to learn about his or her (a) learning needs/ styles, and (b) in- and out-of-school literacy practices/skills. This could be a friend, relative in your family, or even a student in a school setting in which you work or

study. Devise six to eight questions that you believe will generate discussion about the reading, writing, listening, speaking, viewing and representing he or she does in daily life. If appropriate, try having him or her use some of the analyzing and categorizing strategies outlined in the previous activity. Write up a summary of the interview, and then compare what you have learned about adolescent literacy skills/practices to the personal inventory you created.

3. Choose a concept from your content area to plan a lesson you could implement in a middle or high school level class. Use the two criteria below to incorporate elements of multiliteracies, new literacies, and multimodality into the instructional design:
 - Choose one to two multimodal texts that could support/enhance students' content knowledge acquisition and development of literacy skills while considering a diverse range of abilities, exceptionalities, and backgrounds. Consider videos, songs, Internet-based resources, and artwork.
 - Design a learning activity that draws upon students' out-of-school literacy practices in ways that will enhance their understanding of content information and increase their levels of engagement, motivation, and participation (e.g., translating an excerpt from a classic piece of literature into text message form or a Facebook post).
 - Create an assignment that requires students to employ multiple literacy skills to complete it, such as reading an article about a topic, conducting an Internet search to find and write up supplemental information about it, and create an artistic representation of what he or she learned to be shared with the class.

Web Resources

- Curriculum and instruction resources <http://www.21stcenturyschools.com/Curriculum.htm>
- Digital Nation: Life on the Virtual Frontier <http://www.pbs.org/wgbh/pages/frontline/digitalnation/view>
- Literacies for the Digital Age <http://www.schrockguide.net/literacy-in-the-digital-age.html>
- National Center on Universal Design for Learning Resource Library http://www.udlcenter.org/resource_library
- *New learning: Transformational designs for pedagogy and assessment.* <http://newlearningonline.com/multiliteracies>
- Study Guides from The *History Channel website* <http://www.history.com/shows/classroom/articles/study-guides-2>
- Technology integration <http://www.edutopia.org/technology-integration>

References

- Albers, P., & Harste, J. C. (2007). The arts, new literacies, and multimodality. *English Education*, 40(1), 6-20.
- Alvermann, D. E. (2012). Is there a place for popular culture in curriculum and classroom instruction? [The point position]. In A. J. Eakle (Ed.), *Curriculum and Instruction* (Volume 2, pp. 214-220, 227-228). Thousand Oaks, CA: Sage.
- Center of Applied Special Technology. (2011). *Universal design for learning guidelines version 2.0*. Wakefield, MA: Author.

- Chappell, S. (2009). Young people talk back: Community arts as a public pedagogy of social justice. In J. Sandlin, B. Schultz, & J. Burdick (Eds.), *Handbook of public pedagogy: Education and learning beyond schooling* (pp. 318–326). New York, NY: Routledge.
- Coiro, J., & Dobler, E. (2007). Exploring the online comprehension strategies of sixth-grade skilled readers to search for and locate information on the Internet. *Reading Research Quarterly*, 42, 214–257. doi:10.1598/rrq.42.2.2
- Compton-Lilly, C. (2012). *Reading time: The literate lives of urban secondary students and their families*. New York, NY: Teachers College Press.
- Cope, B., & Kalantzis, M. (2000). *Multiliteracies: Literacy learning and the design of social futures*. London, England: Routledge.
- Hafeli, M. (2015). *Exploring studio materials: Teaching creative art making to children*. New York, NY: Oxford University Press.
- Halliday, M. A. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London, England: Edward Arnold.
- Hull, G. A., & Schultz, K. (2002). *School's out: Bridging out-of-school literacies with classroom practice*. New York, NY: Teachers College Press.
- Jewitt, C. (2009). An introduction to multimodality. In C. Jewitt (Ed.), *The Routledge handbook of multimodal analysis*. Oxford, United Kingdom: Routledge.
- Jewitt, C., & Kress, G. (2003). *Multimodal literacy* (pp. 14–27). New York, NY: P. Lang.
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. London, England: Routledge.
- Lankshear, C., & Knobel, M. (2011). *The new literacies: Everyday practices and social learning*. United Kingdom: Open University Press, McGraw-Hill Education.
- Leu, D. J., Jr., Kinzer, C. K., Coiro, J., & Cammack, D. W. (2004). Toward a theory of new literacies emerging from the Internet and other information and communication technologies. In R. B. Ruddell & N. Unrau (Eds.), *Theoretical models and processes of reading* (5th ed., pp. 1570–1613). Newark, DE: International Reading Association.
- Lewis, E. C. (2013). Young writers program for migrant youth. In S. Chappell & C. Faltis (Eds.), *The arts and emergent bilingual youth: Building culturally responsive, critical and creative education in school and community contexts*. New York, NY: Routledge.
- McLaren, P. (1994). *Life in schools: An introduction to critical pedagogy in the foundations of education*. White Plains, NY: Longman.
- Miller, S. M., Thompson, M. K., Lauricella, A. M., Boyd, F. B., & McVee, M. B. (2012). A literacy pedagogy for multimodal composing: Transforming learning and teaching. In S. M. Miller & M. B. McVee (Eds.), *Multimodal composing in classrooms: Learning and teaching for the digital world*. (pp. 114–129). New York, NY: Routledge.
- Moje, E., & Tysvaer, N. (2010). *Adolescent literacy development in out-of-school time: A practitioner's guidebook*. New York, NY: Carnegie Corporation. Retrieved from https://www.carnegie.org/media/filer_public/97/16/97164f61-a2c1-487c-b5fd-46a072a06c63/ccny_report_2010_tta_moje.pdf
- National Coalition for Core Arts Standards. (2014). *National core arts standards: A conceptual framework for arts learning*. Retrieved from <http://www.nationalartsstandards.org/>
- National Council of Teachers of English/International Reading Association. (2012). *Standards for the English language arts*. Urbana, IL: NCTE Publications. Retrieved from <http://www.ncte.org/standards>
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English Language Arts & Literacy in History/Social*

- Studies, Science, and Technical Subjects*. Washington, DC: Author. Retrieved from <http://www.corestandards.org/ELA-Literacy/>
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60-92.
- Sefton-Green, J. (2013). *Learning at not-school: A review of study, theory, and advocacy for education in non-formal settings*. Cambridge, MA: Massachusetts Institute of Technology. Retrieved from https://mitpress.mit.edu/sites/default/files/titles/free_download/9780262518246_Learning_at_NotSchool.pdf
- Street, B. V. (1995). *Social literacies*. London, England: Longman.
- Vasudevan, L., Kerr, K. R., Hibbert, M., Fernandez, E., & Park, A. (2014). Cosmopolitan literacies of belonging in an after-school program with court-involved youths. *Journal of Adolescent and Adult Literacy*, 57(7), 538-548. doi:10.1002/jaal.288
- Wiggins, G., & McTighe, J. (2005). *Understanding by design*. (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

11. Teaching as a Writer—Assigning as a Reader

Bryan Ripley Crandall

Abstract

The chapter addresses effective practices for teaching writing in middle and secondary schools and offers a framework for thinking about writing assignments through content, design, and language conventions, with emphasis on purpose, audience, and idea development. The chapter will enable readers to understand school-based writing assignments by asking, “In what ways do people in my content area write, and how can in-school writing assignments best provide real-world opportunities?” The chapter makes an argument that for students to attain meaningful outcomes related to writing, they need to develop their skills within a community of writers.

Learning Objectives

After reading this chapter, readers will be able to

1. establish language used by educators for discussing the teaching of writing;
2. describe ways that written genres make communication possible;
3. highlight the importance of purpose, audience, and idea development when teaching writing;
4. discuss writing as an activity requiring students to be motivated to reach specific outcomes through tools, rules, division of labor, and community;
5. identify several effective practices for writing instruction.

Introduction

A wise writing teacher in Syracuse, New York, Mark Austin, tells students, “Writing is a foreign language to everyone” (personal communication). Mr. Austin teaches in a diverse high school where multiple languages are spoken. Many young people arrive to his class with varied communication skills, and more often than not, they are not the traditional language skills valued in standard curricula or assessments. Although most people are born with the potential to communicate and to express their ideas, writing is indeed a foreign language to everyone because it is not instinctive and must be learned. This is especially true for the ability to write in school settings, which serves as an important gateway to achievement in the Western world.

In the words of cultural critic and historian Henry Louis Gates (1986/2006), writing has “stood alone among the fine arts as the most salient repository of ‘genius,’ the visible sign of reason itself. In this subordinate role, however, writing, although secondary to reason, is nevertheless the medium of reason’s expression” (p. 217). In other words, those who write have the power to influence others, including employers, supervisors, teachers, business leaders, politicians, and financial agents. Being able to write well is a form of empowerment. Teaching written communication, then, helps young people to participate in a world of divergent opinions, varying interpretations, conflicting viewpoints, and multiple perspectives. It may be said that he or she who writes effectively is also he or she who “rights” and “wrongs” the world.

Students in middle and high school classrooms are not born journalists, novelists, historians, scientists, poets, bloggers, tweeters, or musicians. They are, however, born within social, historical, political, and cultural traditions that help shape an innate desire to communicate with others (Prior, 2006). Another way to look at this is that writers arrive at who they are because of their lived experiences, and because of the ways writers before them have written about the world.

All of us who read learn from texts. All of us who write texts gain entry into the communities in which we hope to belong. As discussed in Chapter 1, texts include diverse modes of communication such as books, videos, billboards, and clothing. The term “texts” in this chapter is also used broadly to include essays, novels, news articles, poetry, movies, scripts, reports, proofs, or even instant messaging. Reading and writing texts are interconnected like yin and yang—the Chinese philosophy—complimenting one another fluidly. We become writers through the experiences we have as readers. Similarly, we gain authority when writing effectively for others to learn what we have to say. The written word is documented definitively because it is a commitment and testimony to the page.

As Mr. Austin (personal communication) noted, none of us is born a writer, even if we are born to express our needs to others. Babies begin life by making basic sounds and performing simple gestures that are rewarded and celebrated by doting adults. Thus, particular forms of communication are encouraged, and the language-acquisition process begins. Soon, the sounds a child utters become conditioned to represent words that are recognizable and have meaning to others. The child begins to associate words with wants, needs, and ideas. In Western cultures, the oral language may eventually move to marks on paper. Children marking their world with crayons and doodles in the United States is a progression toward more sophisticated acts of writing. Scribbles that seem random to an adult are often a first step in a child’s development as a writer.

Once in school, children’s language advances through learning vocabulary and sentence structures. Their innate need to communicate is met with formal rules. Over time, the rules become more aligned with traditions that are valued by particular cultures such as academic essays, editorials, on-demand responses, formal emails, and personal narratives. Beyond school, individuals write in the ways of their fields. The lawyer learns to write as a lawyer, the accountant learns to write as an accountant, the novelist learns to write as a novelist, and ultimately, a citizen learns to write as a civic participant. To participate and gain authority, one must write in the ways that are valued by his or her communities.

The National Writing Project is one of the nation’s most celebrated writing networks for teachers and promotes written communication as being essential for learning and democratic participation (Whitney, 2008). A core principle promoted by the organization is, “There is no single right approach to teaching writing; however, some practices prove to be more effective than others. A reflective and informed community of practice is in the best position to design and develop comprehensive writing programs” (National Writing Project, 2015, Core Principle #4). Teachers of writing can become more effective by reflecting on their own writing processes, as well as by becoming active readers, listeners, and consumers of knowledge. They should participate in professional communities and design lessons that help students write for college and career readiness, and support the ways individuals write to learn (Shanahan, 2004).

Readers of this chapter should understand what it means to be a teacher who instructs students in the traditions of specific academic communities. Such teachers encourage readers to think about assignments that are “real world” and audience-driven so that students have the opportunity to see themselves as apprentices working toward mastery in a particular subject area.

A Shared Language for Teaching Writing in School

Kelly Gallagher (2011), a teacher and author of several practitioner texts, states that writing “can be used as a vehicle to express ourselves as we negotiate the journey through our lives” (p. 24). Because numbers of ideas are infinite, so are the ways humans express their ideas in writing. In everyday conversation we say random things, shout out opinions, ask silly and profound questions, gossip, and declare information in the form of statements and affirmations. Committing ideas to a laptop or paper, however, can be more anxiety-provoking. Yet composing for others in written forms is important because it makes the ideas we have more permanent, even if the process feels more intimidating. Writing records history, demands action, and shares stories. It is a negotiation of how we think, and as will be highlighted in this chapter, usually has a purpose, an audience, the development of thought, support for claims, awareness of genre, and knowledge of language conventions (Lunsford, Ede, Moss, Clark, & Walters, 2012). In other words, what is written depends on what it is we want to say, who it is we want to say it to, where it is we want it to be said, when it is we want it to be read, and why it is we feel it is important. A shared language for teaching writing is provided in this chapter. Such language allows educators to communicate effectively with one another by providing the vocabulary for discussing classroom objectives and goals and for conferring with students about their own writing development.

In the section that follows, the terms for teaching writing—*content, design, and language conventions*—are discussed in depth to provide an overarching framework for the language commonly used by teachers. Within each frame, additional terms are provided.

Content

Within any school day, a tremendous amount of content instruction occurs. In a Physical Education class, students might learn the intricacies of playing badminton while thinking of ways to strategize against their opponents. In an English class, a teacher might highlight the Greek suffix meaning “fear” in the words *agoraphobia*, *claustrophobia*, and *omphalophobia*, in anticipation of a quiz on Friday. Down the hall, a World Civilization teacher might create a complicated web to demonstrate the entangled politics that led to World War I. Meanwhile, a math class might graph slopes and intercepts on calculators, while a science class is midway through a lab that involves making homemade yogurt during a study of bacteria. Knowledge (and there is much of it to be covered!) is content. In the simplest sense, content is the material and information instructors provide.

Content is often learned through what we read and write. For readers, content is the information that is gathered from reading new information. For writers, content is what is composed and shared with others—a distribution of the knowledge that a writer knows. Without content—specific knowledge and details within any field—there is no reason for reading or writing. Content is a necessity, and for a writer, it is the specific knowledge to be used to establish a purpose for communicating with an audience through the development of ideas.

Purpose

A lament heard in classrooms all across the country is, “Why are we doing this?” Although many teachers cringe when hearing these five words, the inquiry is natural and spot on. If students do not understand the purpose of an assignment, teachers stand a chance of losing their engagement. Therefore, it is necessary to explain to students exactly why a lesson is taught and help them to see the relevance it. Writing needs to have a purpose. Students need to know what is expected of them and why they are engaging in writing before they set out to compose.

Purposes vary, but all writing has at least one. For example, the purpose for writing this particular chapter is to provide a shared language for teaching writing for beginning teachers and to provide a heuristic or model for looking at writing assigned in classrooms. Even short pieces of writing have purpose. For example, my niece, who was graduating high school last spring, tweeted an

inquiry regarding when I would be traveling to attend her party. The prose was short but fulfilled her purpose. Through a tweet she prompted me to pinpoint an exact date and time for my arrival. This initiated me, however, to also purchase a gift for the celebration and to call my sister to see what else I needed to bring for the party. At only 140 characters long, my niece's written text accomplished its purpose, and even motivated me to arrange my travel, check my bank account, and let my sister know my willingness to help.

Of course, most purposes for writing in school are more substantial than a simple tweet. As previously stated, writing assignments require teachers to be clear about *why* they are given. One purpose for writing is to communicate information quickly, such as asking students to write responses on an exit slip, compose a short notebook entry, or complete a quick quiz. Another may be to help students think through or show what they know. Such a purpose might be featured in assignments or activities such as taking specific notes, writing a lab report to synthesize findings from an experiment, or writing freely about pet peeves. Additional writing assignments with the purpose of showcasing what a student knows and/or has learned include writing a biography of a historical figure with references to primary sources, or drafting an editorial to highlight findings from a statistical survey. Teachers can readily prepare young people to become better writers by helping them understand the purposes for which they write.

Audience

Another word important to the language of writing is “audience.” In addition to having a purpose for writing, students should be asked to consider an audience for whom they are composing (Lunsford, et. al, 2012). Envisioning potential readers helps a writer to anticipate the kinds of questions a reader might have. For example, when authors composed chapters for this textbook, we imagined a demographic for our readers—individuals thinking about a career in teaching—so we could better shape the researched practices we desired to share. Versatility in communicating to a variety of audiences in school better prepares students for the work they will do as adults in a diverse society. Typically, students write just to get a grade and writing becomes a guessing game of “what does this teacher want me to say?” A more effective practice, however, is to have students write for larger audiences beyond school.

One way to highlight the importance of writing for different audiences is to ask students to write down a basic sentence that makes a request. They may write, “Can you pick me up after work?” “Go get the mail,” or “Would you let me borrow your pen?” After, a teacher shares images on a large screen that depict a variety of characters such as a nun, a punk rocker, a child, an elderly man, a police officer, and a wounded soldier. Students are then asked, “How does your request differ depending on the audience it is intended for?” Students then turn to one another and make their requests as if they are delivering them to each character.

Another activity to sensitize students to the importance of audience is to have them think about something they are passionate about. Next, have them think about this passion and how they would write about it for a variety of audiences, such as elders in a nursing home, an irate crowd with rocks in their hands, or a congressional representative. Although their passion stays the same, what they write and how they write it depends on who it is they imagine as recipients of their words. Discuss other examples, such as writing a comic performance for an audience who wants to laugh, or creating a TedTalk for an audience who desires inspiration, or a speech to persuade peers to take action. Helping young people to realize the importance of audience can influence how they use language in specific ways to communicate with them (Lunsford et al., 2012).

Idea development/supporting claims

Once students have a purpose for writing and an audience in mind, they then need to develop ideas to support claims they will make. This is the task of choosing which content is suited for commu-

nicating their purpose to their chosen audience. Brainstorming, or the act of listing possible ideas to fulfill a particular purpose, is an effective practice for choosing content (Lassonda & Richards, 2013), and modeling this for students is also important. The teacher should introduce a writing topic to his or her students and then demonstrate how to structure a response through modeling the act of brainstorming with them. The ways ideas are generated will vary depending on the purpose and the audience, yet effective teachers model their thinking in front of students (Lassonda & Richards, 2013). Students can contribute to a list of ideas, create an outline, or even draw thought bubbles above a stick figure.

Most school-based writing requires young people to make claims that can be defended through the knowledge students acquire, often with content from classroom instruction, notes, assigned reading, and independent research. Teachers play an important role in helping students develop ideas based on content as they coach students to formulate their thinking. Posing questions is one way to help students to elicit ideas to support their claims. What do you think right now? Why do you think this way? Where else can you go to find support for this thinking? What have others said? What evidence is there that your thinking is on track? What other sources might you consider for helping your thinking? Such questions help young writers to develop good ideas and to support claims.

Design

Like content, design offers teachers a framework for discussing writing practices. In writing, designs arrive as genres, which are specific writing forms and features unique to disciplines. Genres allow a writer to communicate in particular ways because they provide structures commonly used in a field. Herrington and Moran (2005) describe genres “as social knowledge” (p. 247) and Beach (2000) refers to them as “social glue” (p. 17) because they situate and bind knowledge within communities. The spoken word artist communicates in a genre of oral poetry and performance, while the journalist writes in the genre of a news article. A scientist shares through lab reports, while the mathematician showcases knowledge through proofs. Genres unite people within communities—ones that are entwined with their own history, traditions, and structures. Each content area has its own genres for writing, and a teacher should reflect often on what those genres are.

A genre (see Table 1) is organized with familiar patterns to bring unity among readers through customary sentence structures and uses of media (Freedman, 1993). The genre becomes the design that allows an individual to communicate with others according to specific traditions and disciplines. For example, a restaurant menu is a written genre that is used to offer prices and descriptions of food selections to customers. A person who composes a restaurant menu must understand the purpose of a menu, as well as reasons for using it. Likewise, a family who eats at the restaurant must understand what a menu does in order to effectively use it for selecting food. Thus, something as simple as a menu accomplishes the complex task of creating a relationship between writers and readers. The same principle holds true for genres used in school and within specific fields of study.

Table 1. *Common Genres Used by Writers*

Personal	Creative	Expository/ Argumentative/ Informative	Writing to Learn	Digital
<ul style="list-style-type: none"> • Autobiographies • Essays • Narratives • Memoirs • Diaries • Journals • Confessions • Letters 	<ul style="list-style-type: none"> • Short Stories • Poems • Novels • Screenplays • Scripts • Commercials • Novellas • Graphic Novels • Comic Strips • Monologues • Roasts/Toasts • Songs • Jokes 	<ul style="list-style-type: none"> • Reports • Directions • Manuals • Pamphlets • Brochures • Articles • Research • Reviews • Labs • Editorials • Proposals • Requests • Resumes 	<ul style="list-style-type: none"> • Class-notes • Brainstorms • Lists • Free-writes • Plans • Doodles • Sketches • Drafts • Surveys • Observations • Field-notes 	<ul style="list-style-type: none"> • Emails • Blogs • Digital Stories • Tedx Talks • Tweets • Posts • Websites • Texts • PowerPoints • Prezis
<p><i>Note.</i> Genres can span multiple categories.</p>				

Organization

Every genre has its tradition of how language communicates specific ideas to others and offers hints at how writers are to organize their thinking. For schools in the United States, teachers commonly introduce the 5-paragraph essay, which includes an introduction, a body of three paragraphs, and a conclusion. Although the 5-paragraph essay provides an organizational structure that can be helpful to new writers, some argue it is not helpful for writing in the real world (Campbell & Latimer, 2012) because real-world writing is rarely organized in a 5-paragraph manner. For example, an English teacher might highlight personal narratives or short stories that require more development of thought, and a history teacher might discuss biographies or opinion pieces written for a local newspaper that have their own format unlike the 5-paragraph essay. No matter the genre, the teacher should ask, “How is information organized? What are the patterns of the genre? How can awareness of these patterns allow us to write in the traditions of such work?” Paying attention to such design will benefit student writers when they set out to write on their own.

Coherence and unity

Equally important to the ways writers organize thoughts within a genre is how coherent their ideas are so that they make sense to readers. *Coherence* in writing typically refers to the flow of sentences and paragraphs with one another to create internal consistency in the writing, whereas *unity* means the ability to stay focused on a particular purpose for a sustained time to create a sense of wholeness to the writing piece. Given the fast-paced, highly stimulating nature of 21st century information, assisting young people to write with unity can be a monumental task, especially since the opposite of unity is disconnectedness, and our technological, ever-changing culture too often rewards the unpredictable. Even so, successful writers maintain a focus that brings readers with them. Genres can bring coherence and unity to readers by offering familiar patterns and forms, and teachers who assign writing should share models with students to point out qualities of effective writing, especially in reference to unity. For example, teachers could highlight the use of transition words such as “first” or “in addition to” and discuss with students how such words help keep the reader focused and move information forward in an organized way.

Sentence structure

Quality writing instruction requires students to read like writers and write with specific readers in mind. In other words, a teacher asks students to think about the style of writing as they are reading and then has them use similar techniques in their own writing. Composing in this way requires drawing attention to the various ways sentences are constructed (Hillocks, 2005). Research demonstrates that teachers who spend time analyzing sentence structures of various published writers are able to better assist young writers with learning how to effectively structure their own sentences (Applebee & Langer, 2009; Graham & Perin, 2007). A method for teaching students about structure is to offer them a set of tools for varying sentences. As an illustration, if a writer uses colons proficiently, a teacher might highlight this and state, “Notice how the author used a colon here before listing important items. This could be an effective style to use in our own writing.” Another practice teachers can model is how to effectively combine several short sentences into a more complex (and more interesting) sentence. For example, the sentences, “*The United States is diverse. The United States is a democracy. The United States is heterogeneous. The United States is always changing.*” can be combined to read, “*The diverse and heterogeneous United States is a democracy that is always changing.*” Another combination might be, “*The United States, a diverse and heterogeneous democracy, is always changing.*” Sentence combining exercises demonstrate how writers use language in a variety of ways and that varying sentences lead to effective writing.

Media

Also important to design is the use of *media* when writing in particular genres. Using media has long been part of the composing processes (cave drawings, a form of media, were some of the earliest pictographs used to communicate with others). For additional examples and discussion on media, please see Chapter 10 of this textbook. Current technologies allow a writer to embed illustrations, videos, photographs, and tables in written documents. Highly advanced uses of media allow writers, such as those who create and manage blogs, to include recorded audio from a cellphone, to link websites that influence the ideas of what they are communicating, to upload videos, and to utilize hyperlinks to enhance what they intend others to know. Media includes everything from tables and graphs to embedded videos and referenced resources. The use of media is often genre-specific, too, and sharing models of genre-specific media will help young people use multimedia to share information and further develop claims they want to support. Programs like Prezi, Glogster, and PowerPoint, which are all digital tools, can help visually organize content in colorful and animated ways that enhance written and spoken communication.

Teachers in all content areas must pay attention to the characteristics of genres in their field so they can effectively work with students on writing within such designs. The curriculum should help students create unity in their writing, vary sentence lengths and structure for effect, and use media to enhance communication. Teachers should make themselves aware of the ways that genres in their particular discipline communicate information to specific audiences. The more familiarity students have with how professionals communicate in real world ways, the better prepared they will be to write within such communities as they move beyond school.

Language Conventions

Weaver and Bush (2008) write, “Grammar can be a way to *enrich* student writing—a way to make writing better, more complex, more exciting, and overall, more rich and interesting” (p. xi). Grammatical conventions for language, which are the standard rules, methods, and practices, can also be fodder for debates, insecurities, and frustrations. Rules for how to properly use language conventions were once a primary concern of teachers (see Chapter 6 for more discussion and critique about teaching decontextualized language conventions in writing). Even today, national assessments like the SAT place much importance on language usage, yet the use of emoticons and other abbrevi-

ated semiotics (i.e., the study of signs and symbols) has become a concern among teachers who find “text” in their students’ classroom writing. The mere red-penning of incorrect usage, however, is an exercise in editing rather than establishing dialogue about the various conventions of written expression, and where and when they are acceptable (Hillocks, 1984). Teaching a student to write takes more than correcting a student’s errors.

Today, adolescent writing instruction focuses more heavily on content and design over the emphasis of conventional rules (Applebee & Langer, 2013; Graham & Perin, 2007). Grammar, usage, and documentation are best taught in context of the writing students produce, and although language conventions traditionally fall within the jurisdiction of English and foreign language teachers, writing instruction belongs to all content areas (McKenna & Robinson, 2014). Content area-teachers should feel comfortable hosting mini-lessons on grammar, usage and correctness, especially in the context of their field.

Grammar and usage

At the most basic level, grammar is the systemic and structured system for using language, arranging words and phrases, and creating meaning in recognizable forms. Grammar provides rules to effectively communicate with others. Similarly, usage is how individuals typically use words and phrases. More whimsically, *UrbanDictionary.com*—an online site popular with youth that offers alternative definitions—defines grammar and usage as “a form of writing or speaking which is hard to learn and hence is ignored by the general populous [*sic*]” (Severian, 2006). Rules for written language are often debated. Even so, a common goal for teachers who teach writing is to teach and model the use of Standard American English, that is, the English language used in professional communication in the U.S. and taught in American schools. Thus, it is the responsibility of teachers to know these (and perhaps other) language conventions, and if they have a question about language use, they should model for students how to resolve it.

Correctness

In addition to having adequate knowledge of language conventions to write well, students need to know the meanings of a lot of words, they need to spell words correctly, and they need to understand how and when to cite references consistent within academic disciplines (e.g., the Modern Language Association for English and American Psychological Association for Psychology). Such protocol allows young writers to join in professional communities beyond school. A lack of knowledge for how to write well may cause individuals to be rejected by particular communities. Rightly or wrongly, a student runs the risk of a rejection from professional writing communities if his or her writing strays too far from what academic institutions value. Teaching conventions is important because it assists writers with the most effective ways to communicate, given the purposes of their communication both within and beyond school (Freeman & Freeman, 2009). Language conventions, like design and content, are part of the package for instructing young writers in school, and all three together provide a framework for how teachers talk about and assess writing (Calfee & Miller, 2007).

In this section of the chapter, I offered shared language for teaching writing in middle and secondary schools, including content, design, and language conventions. No matter the content area, students need a purpose for what they write and an audience with whom to communicate. Teachers should be familiar with the genres used in their field and teach young writers so they, too, design through recognizable traditions. This includes how writers organize thinking, bring unity to their work, and vary sentences. Students should be mentored to use proper language conventions as well, including grammar, usage, word choice, spelling, and documentation. To accomplish these important goals, teachers need a shared language for teaching writing, and effective practice requires teachers to be aware of their own writing processes including genre-specific designs that

enhance communication within a discipline. In the next section, I provide a heuristic, or model, to assist how teachers might help students achieve written outcomes desired in specific disciplines.

Writing as Activity Within a Classroom

It is 7:50 a.m. and the buzzer sounds, signaling that students have exactly four minutes to get themselves to where they are scheduled to be. Imagine yourself as a teacher, in the hallway sipping coffee from a Styrofoam cup, making sure your backpack is on your shoulder, your keys are in your pocket, and you remembered to grab the cellphone from the front seat of your car. You did not sleep well last night because you forgot to plan for your elective class, administrators said they needed to see you during your preparation period, and you stayed up a little too late reading a book. Grogginess is still in the corner of your eyes as you reach your classroom, the gymnasium, the band room, or a lab or studio. You unlock the door for 32 sleepy, active, enthused, unenthused, anxious, apathetic, studious, rebellious, whimsical, confused, and frustrated learners assigned to your first period class. Today begins a new unit for you to help them develop written communication through an assignment important to your content area. You turn on the lights knowing that what happens in this room today will be essential to the outcome of what students produce tomorrow. There is not a second to waste, and every activity matters. Yikes. Teaching is a lot of responsibility.

Teachers are extremely busy, yet know that to teach writing effectively they need to be attentive to all of the components discussed throughout this chapter: content, design, and language conventions. Still, teachers also think about how a classroom environment influences the writing students do. They wonder what their role should be, what instructional tools they should provide, and which rules they should emphasize for students to follow.

Understanding Writing as an Activity To Reach a Written Outcome

Writing activity genre research (Russell, 2010) and activity theory (Engeström, 2015) provide a helpful model, or heuristic, for thinking about the delivery of writing instruction. Scholarship in this area situates learning as an activity within a classroom system that is enhanced by teachers thinking aloud about their own practices (Smagorinsky, 2002). It is important for teachers to pay attention to the classroom system, or the environment provided that helps a student to learn (see Figure 1). Seeing a classroom as an activity system helps a teacher to map out pedagogical choices to enhance student learning, including how they communicate in writing. Classrooms are complex and contain individuals with varying opinions, experiences, and histories that may or may not be in line with local, state, and national standards required of teachers to teach.

Thinking of a classroom as an activity system can benefit the choices a teacher makes, especially when paying attention to students (*subjects*), the purposes a student has (*motives*), and the products (*outcomes*) a student produces. Also important are the *tools* provided to a learner, the *rules* they are expected to follow, how *labor is divided* in a classroom, and how a *community* is established for all. Together, *subjects, motives, outcomes, tools, rules, division of labor, and community* encompass a writing activity system (Engeström, 2015 & Russell, 2010). Thinking about our classrooms as a system for activity can also help us to think about the complexities of teaching writing. To enhance the outcomes of what students in our classrooms write, it is important to pay attention to every part of the system. This includes, of course, the language for discussing writing with students (as discussed in the previous section): purpose, audience awareness, idea development, support, genre, organization, and unity.

Subjects

Many experienced teachers are first to declare how there is no learning without building relationships with students (Moje, Overby, Tysvaer, & Morris, 2008). Before a child can learn in a classroom, trust needs to be established, as well as recognition of student individuality. In a writing

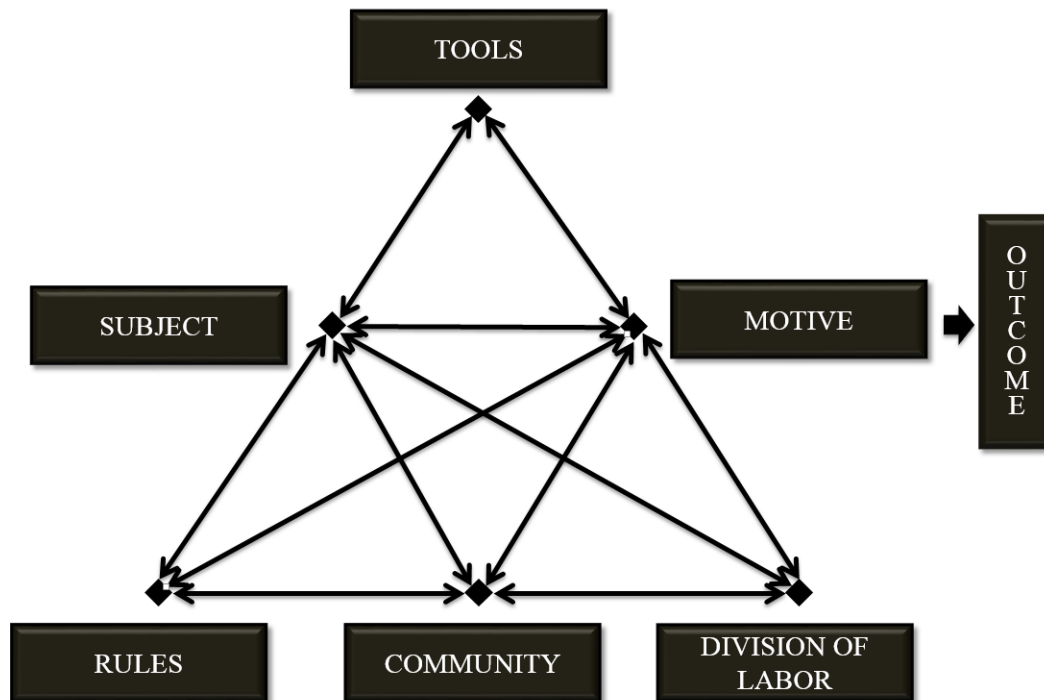


Figure 1. The structure of human activity. Adapted from *Learning by Expanding: An Activity-Theoretical Approach to Development Research (2nd ed.)*, by Y. Engeström, p. 63, 2015, New York, NY: Cambridge University Press. Copyright 2015 by Yrjö Engeström.

activity system, it is important to know each student (subject) as an individual. Early in the year, a teacher should inventory students' interests, talents, ambitions, and fears to help guide the instruction of the classroom. Teachers should also get to know who their students are both inside and outside the classroom. Although effective teaching requires strong content knowledge, it is also paramount for teachers to see their students as people first. Knowing each student as an individual will assist supporting their purposes and motivations as writers.

Motives

Most books published on the teaching of writing promote a six-letter word that is extremely important to the writing classroom: choice. Choice is important because it is the foundation of what motivates a student to want to write. If you think about your own history as a learner, you probably recall that you put more time and effort into projects that interested you. Assignments that offer choices to learners provide flexibility, and flexibility allows individuals to find a motive (purpose) to participate in writing activities. When students are motivated to write, they naturally become more invested in the outcomes they produce. For example, a teacher may wish to help students gain a deeper understanding of the Civil Rights movement from 1954–1968. As content is gained through notes, discussions, assigned readings, and documentaries, students may be given a choice to explore a humanitarian issue that is important to them. While they explore that particular era in U.S. history, they might also be assigned to write their own OpEds (i.e., opinion editorials) where they argue for or against a cause and/or take a stance on an issue they care about. In essence, effective writing teachers harness the motives of students to produce stronger writing by providing choice in writing assignments that are aligned with the content they also wish to deliver.

Tools

To facilitate a written outcome within a writing activity system, a teacher must also provide numerous tools for students to reach their goals. Tools might include the lessons provided, the models used, the notes shared, and the materials read. Tools can also be conversations, homework, visits to the library, and adhering to writing processes such as brainstorming, drafting, conferencing, rewriting, editing, and revision. Other tools include watching movies, building vocabulary, and even taking tests and quizzes. Writing activity systems that offer writers a variety of tools effectively help writers reach important written language outcomes. These tools can be material (e.g., a dictionary, a model of the genre being taught), mental (e.g., guiding questions, opportunities to brainstorm), and social (e.g., discussions, performance). The more tools teachers have, the better suited they are to provide instruction that can work for students.

Rules

Because classrooms are social environments where many personalities are brought together within the same space, it is important to establish rules within this activity system. In addition to establishing normal procedures and day-to-day routines (rules), as discussed previously, it is also helpful to work with young writers to establish how to communicate in particular genres (see the previous section on designs), which are also rules. Featuring models of writing can help young people learn to understand the rules of a genre. Rules establish traditions and provide frameworks for others to follow. Rules, too, are meant to be broken, but before this can occur, an understanding is needed of why rules were created in the first place. As rules are established, conversations about them will help students to think about what they are writing and when breaking a given rule makes sense. When looking at a genre, for example, students can point out characteristics they notice, and these characteristics can serve as guidelines or rules they follow in their own writing.

Division of labor

Although students spend much time writing alone, writing is rarely a solo act. A teacher who instructs students about what writing is supposed to be, without allowing them time to develop writing skills, is less likely to receive quality writing from students. Instead, the labor of writing requires roles within classrooms and should be viewed as a social activity where everyone participates. As a class, students can brainstorm ideas together, or teachers can model their thinking in front of students. The next day, students might share their drafts with classmates. Although the labor for writing typically falls on students, many others share in helping students compose a written piece. Encouraging students to think about writing together, allowing them time to write on their own, and providing space to share writing with one another can have a positive effect on the outcomes they produce. For example, I wrote this chapter alone, but through sharing drafts of the chapter with friends, colleagues, and the editors, it was shaped to what you read today. Writing may look like a solo act, but outcomes are a result of collaboration, including this volume of work. All writing is a community act.

Community

In addition to building relationships, creating community among young people enhances the written outcomes in an activity system. Communication and community both begin with “com,” the prefix meaning *together* and *with*. A teacher’s job is to help students come together as a community of writers who are willing to communicate with one another. Further, writing in genres used by professionals provides a location for young people to practice writing in the ways of a professional community. If adolescents view themselves as young scientists, they will more likely write like young scientists. If they view themselves as artists, they will fashion writing in artistic ways. If they learn their opinions are valued and supported, they will be more confident to share their opinions with others. A teacher who promotes effective writing practices creates an environment

where students are willing to take risks and try new things. As a community, they share ideas, ask questions, and feel safe to explore thinking together. They do this by discussing models of writing unique to particular communities.

Outcome

The outcome in a writing activity system is the product created by the student. Outcomes arrive when teachers pay attention to all parts of the activity system rather than simply assigning writing tasks to students. If school is an arena for apprenticeship, then assigning real-world writing and providing mentoring are essential. Sharing examples of writing from students, published authors, and teachers better prepares students to reach important outcomes. Offering models and discussing them can enhance the quality of writing students turn in. The outcome is the result of all the parts in the activity working together, including the coordination of subjects, tools, rules, divisions of labor, and motives that create a writing activity system.

An example of a well-coordinated writing activity I once observed involved a teacher who spent a week teaching students how to approach writing the college essay. On the first day, she asked students to highlight personal achievements and interests. She used this information to first learn about her students as individuals (subjects) and as a way to assist them on narrowing a topic from which to write. The students were motivated to write the essays because they wanted to attend college and needed to be successful to achieve acceptance. On the second day, the teacher shared models of college essays (tools), and her students discussed the ones they thought were more effective. The teacher highlighted what experts have to say about college essays, and after reading the models they listed effective characteristics of the genre (rules). The teacher did not dictate what was best; instead, she worked with her students and listened to their contributions (division of labor). The classroom walls were covered with posters of several colleges and universities, and as a senior English class, materials supported the work of the room. The classroom, on the whole, was geared toward the success of all students (community). By the third day, students read first drafts with one another and made suggestions. On the fourth day, the teacher brought students to a computer lab to revise and edit their work. By the fifth day, they had a college essay to submit for a grade and also for a real-world audience—the college of their choice (outcome).

By viewing classrooms as activity systems involving subjects, motives, tools, rules, divisions of labor, and community, teachers can help students learn to write and apply their writing skills to accomplish important life tasks, such as getting into college. This can be accomplished by exploring content, design, and conventions used by writers in each of our disciplines as we prepare students for college and career readiness.

Summary

An aim of this chapter was to provide a common language to discuss the teaching of writing. Through a frame of content, design, and language conventions, the chapter highlighted the importance of purpose, audience, and idea development, with specific emphasis placed on genre. Writing is an activity requiring a subject to be motivated to reach a specific outcome through tools, rules, division of labor, and community. Effective teachers of writing assign writing that apprentices students into the genres of their field and involves well-coordinated activity systems where students can learn to communicate effectively using the written word.

Questions and Activities

1. What do you read in your discipline, and how do you write about what you read?

2. For what purposes and for what audiences have you had to write? Explain how you learned to develop your ideas in reference to purpose and audience.
3. Where did you learn about language conventions, and how have they been used to influence your own writing processes?
4. Think about a piece of specific writing you have done. Why did you write it, and what does it say about you as a writer? Describe the tools and rules that helped you accomplish your writing goal(s). What role did community play in reference to this writing?
5. What genres do writers in your field use to communicate knowledge? Discuss the conventions of writing associated with these genres. How do these conventions help establish a community of writers?
6. What genres of writing do you think you would assign your students? Describe the procedures and rules for writing your plan to teach your students.

References

- Applebee, A. N., & Langer, J. A. (2009). What is happening in the teaching of writing? *English Journal*, 98(5), 18–28. Retrieved from http://www.nwp.org/cs/public/download/nwp_file/12493/What_is_Happening_in_the_Teaching_of_Writing_Applebee_Langer.pdf?x-r=pcfile_d
- Applebee, A. N., & Langer, J. (2013). *Writing instruction that works: Proven methods for middle and high school classrooms*. New York, NY: Teachers College Press.
- Beach R. (2000). Using media ethnographies to study response to media as activity. In A. Watts Palliotet & P. B. Mosenthal (Eds.), *Reconceptualizing literacy in the media age*. Greenwich, CT: JAI Press.
- Calfee, R. C., & Miller, R. G. (2007). Best practices in writing assessment. In S. Graham, C. A. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (pp. 265–286). New York, NY: The Guilford Press. Retrieved from http://digitalcommons.chapman.edu/cgi/viewcontent.cgi?article=1002&context=education_books
- Campbell, K. H., & Latimer, K. (2012). *Beyond the five-paragraph essay*. Portland, ME: Stenhouse Publishers.
- Engeström, Y. (2015). *Learning by Expanding: An activity-theoretical approach to development research* (2nd ed.). New York, NY: Cambridge University Press.
- Freedman, A. (1993). Show and tell? The role of explicit teaching in the learning of new genres. *Research in the Teaching of English*, 27(3), 222–251.
- Freeman, Y. S., & Freeman, D. S. (2009). *Academic language for English language learners and struggling readers: How to help student succeed across content areas*. Portsmouth, NH: Heinemann Press.
- Gallagher, K. (2011). *Write like this: Teaching real-world writing through modeling & mentor texts*. Portland, ME: Stenhouse.
- Gates, H. L. (1986/2006). Writing race. In B. Ashcroft, G. Griffiths, & H. Tiffin (Eds.), *The Post-colonial studies reader* (2nd ed., pp. 216–218). New York, NY: Routledge.
- Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high school*. New York, NY: Carnegie Corporation.
- Herrington, A., & Moran, C. (2005). *Genre across the curriculum*. Logan, UT: Utah State University Press. Retrieved from http://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1151&context=usupress_pubs
- Hillocks, G. (1984). What works in teaching composition: A meta-analysis of experimental treatment studies. *American Journal of Education*, 93(1), 133–170. doi:10.1086/443789

- Hillocks, G., Jr. (2005). At last: The focus on form vs. content in teaching writing. *Research in the Teaching of English*, 40(2), 238-248.
- Lassonda, C., & Richards, J. C. (2013). Best practices in teaching planning for writing. In S. Graham, C.A. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (2nd ed., pp. 193-214). New York, NY: The Guilford Press.
- Lunsford, A., Ede, L., Moss, B., Papper, C. C., & Walters, K. (2012). *Everyone's an author*. New York, NY: W.W. Norton & Company, Inc.
- McKenna, M. C., & Robinson, R. D. (2014). *Teaching through text: Reading and writing in the content areas* (2nd ed.). New York, NY: Pearson.
- Moje, E. B., Overby, M., Tysvaer, N., & Morris, K. (2008). The complex world of adolescent literacy: Myths, motivations, and mysteries. *Harvard Educational Review*, 78(1), 107-180. doi:10.17763/haer.78.1.54468j6204x24157
- National Writing Project. (n.d.). Retrieved from <http://www.nwp.org/cs/public/print/doc/about.csp>
- Prior, P. (2006). A sociocultural theory of writing. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. New York, NY: The Guilford Press.
- Russell, D. R. (2010). Writing in multiple contexts: Vygotskian CHAT meets the phenomenology of genre. In C. Baserman, R. Krut, K. Lunsford, S. McLeod, S. Null, P. M. Rogers, & A. Stansell (Eds.), *Traditions of writing research* (pp. 353-364). New York, NY: Routledge. Retrieved from <http://www.public.iastate.edu/~drrussel/drresume.html>
- Severian. (2006, November 23). In *Urbandictionary* [online]. Grammar [31]. Retrieved from <http://www.urbandictionary.com/define.php?term=grammar>
- Shanahan, T. (2004). Overcoming the dominance of communication: Writing to think & to learn. In T. L. Jetton & J. A. Dole (Eds.), *Adolescent literacy research and practice* (pp. 59-74). New York, NY: Guilford Press.
- Smagorinsky, P. (2002). Activity theory. In B. J. Guzzetti (Ed.), *Literacy in America: An encyclopedia of history, theory, and practice* (pp. 10-13). Santa Barbara, CA: ABC-CLIO, Inc.
- Weaver, C., & Bush, J. (2008). *Grammar to enrich and enhance writing*. Portsmouth, NH: Heinemann.
- Whitney, A. (2008). Teacher transformation in the National Writing Project. *Research in the Teaching of English*, 43(2), 144-187. Retrieved from http://www.personal.psu.edu/alw17/prof/Teacher_Education_and_Professional_Development.html

12. Culturally Responsive Disciplinary Literacy Strategies Instruction

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Abstract

This chapter focuses on different approaches to disciplinary literacy strategies instruction that content area teachers can use to maximize students' understanding of content in academic disciplines. Although teaching literacy strategies is often associated with English language arts, in reality, these strategies are integral to learning in all academic subjects. This chapter includes a brief description of the evolution of literacy theory and research, followed by a model grounding disciplinary literacy within different academic disciplines such as mathematics, social studies, science, and the arts. Descriptions and examples of discipline specific strategies are provided, followed by a discussion of the importance of students' cultural and linguistic backgrounds in planning and using disciplinary literacy strategies. Instruction that incorporates components of culture designed to facilitate learning is known as culturally responsive teaching, which also serves as a foundation by which to critique socially unjust power structures in society.

Learning Objectives

After reading this chapter, readers will be able to

1. sequence the history of reading eras in reference to what has been valued about literacy;
2. explain differences between generalizable literacy strategies instruction and disciplinary- literacy strategies instruction, along with the benefits of each;
3. explain similarities and differences in literacy demands among different types of texts;
4. discuss ways that the valuing and use of students' background knowledge and experiences can facilitate learning;
5. synthesize ways in which discipline specific literacy strategies can be used by content area teachers in culturally responsive ways.

Introduction

Think back to your experiences in content area high school classes such as algebra, history, biology, and art. How did you learn the content from these classes? You might recall writing definitions of key terms, copying notes from the board, listening to teachers lecture, working in small groups engaged in problem-solving, and viewing completed models of class projects. You also may recall being assigned to read textbooks or other documents and then complete assignments or projects related to readings. As you think about the texts you read in each subject, how were they different from one another? Were ideas presented in sentences and paragraphs, or did texts include symbols, graphs, charts, videos, and/or applications? Did you use the same or different strategies to comprehend texts in different classes?

Whether or not you noticed, the texts used in your classes differed in important ways. Chances are, texts that were used in algebra likely contained many symbols, figures, and examples but few photographs. Texts that were used in history probably contained many photographs, along with sections featuring timelines and excerpts of historical documents. Texts that were used in biology were probably structured according to biological systems such as circulatory, endocrine, and respiratory. Texts that were used in art may have consisted mostly of photographs, paintings, drawings, or sculpture, depending on the art class you took. In effect, the texts used in your classes likely did not differ arbitrarily but differed in predictable ways directly related to the systems, traditions, and content of each academic discipline. Based on differences among texts, research has shown that different discipline specific literacy strategies can be used by teachers to help students improve their understanding of course content.

Evolution of Literacy Theory and Research

To understand the recent focus of literacy research across academic disciplines, a brief journey through the evolution of reading theory and research over the past six decades is needed (see Table 1). As noted in Chapter 1 of this textbook, notions of literacy have expanded beyond reading and writing to include listening, speaking, viewing, and performing, and the eras reflect the recognition of the importance of taking this wider view of literacy.

Table 1. *Historical Perspective on Reading Research (Alexander & Fox, 2004)*

Era	Duration	Focus
“Era of Conditioned Learning” (p. 34)	1950–1965	Teaching and reinforcing of basic reading skills, such as word decoding
“Era of Natural Learning” (p. 37)	1966–1975	Facilitating language experiences to help children make meaning
“Era of Information Processing” (p. 41)	1976–1985	Using cognitive processes to make meaning
“Era of Sociocultural Learning” (p. 45)	1986–1995	Incorporating cultural factors to make meaning
“Era of Engaged Learning” (p. 50)	1996–?	Integrating literacy across the lifespan and within multiple contexts

According to Alexander and Fox (2004), a heightened interest in reading research and practice occurred in the 1950s and 1960s, beginning with the Era of Conditioned Learning when learning theories were largely based on the study of behavior. What resulted was an instructional model that involved teaching students how to read using discrete skills (letter sounds and phonics). Next, theories emerged that children learn to read “naturally” similarly to how spoken language is acquired by being exposed to language opportunities. During this Era of Natural Learning, reading and language rich experiences created by adults were thought to best help children make meaning of what was read. Then the focus of theory and research shifted to include cognitive processes involved in reading. During this Era of Information Processing, factors such as attention, thinking strategies, and knowledge organization were recognized as important to make meaning of what is read. Also during this time the social and cultural aspects of learning became a focus. This Era of Sociocultural Learning became particularly informative to culturally responsive teaching practices (Gay, 2010; Moje, 2007; Moje & Hinchman, 2004) discussed later in this chapter. More recently, the Era of Engaged Learning has emerged, based on the use of digital literacies (e.g., websites, audio, video, and other forms of technology-based communication).

Notice how the last era in Table 1 does not include an end date. This means that we are likely in a new era—perhaps an Era of Accountability (Schoen & Fusarelli, 2008), given the focus on high

stakes testing and most states' adoption of the *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* (CCSS; National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010). The CCSS reflect literacy standards that students must meet in English language arts and other academic disciplines, such as social studies and science. Each of the eras is valuable for teachers to draw upon because associated theories and research have offered valuable knowledge toward informing literacy practices.

Basic and Intermediate Literacy

Increased literacy demands in content area classes reflect the need to explore new teaching strategies to assist students with navigating these demands. Certain literacy related abilities, such as being able to read and comprehend printed material, are required across all content area classes; however, as the complexity of content area learning increases, more specialized strategies are needed to comprehend texts and learn from them. A useful framework for showing the differences between these types of literacy strategies was introduced in Shanahan and Shanahan (2008). This framework features three components, including basic literacy (e.g., reading and writing), intermediate literacy that enables learning across all disciplines (e.g., using graphic organizers, visualizing, predicting, asking questions), and disciplinary literacy, which involves “technical uses of literacy” (p. 45) within the academic disciplines. Disciplinary literacy strategies are discussed in more detail after a brief discussion about basic and intermediate literacy strategies.

To be successful at learning in content area classes, students need to master foundational literacy skills, such as being able to read. As word recognition accuracy develops, children begin to read words and sentences more automatically, which facilitates reading comprehension (Perfetti, 1985). But even though the development of basic literacy skills is required to develop more advanced literacy skills, mastery of basic literacy does not guarantee that students will be able to comprehend what they read.

Basic literacy skills mostly involve the application of automatic cognitive processes such as recognizing words and reading fluently; however, intermediate literacy skills involve the application of comprehension strategies that require deliberate cognitive effort (see Chapter 4 of this textbook for more information on strategy use). For example, when a student encounters a phrase such as, “the worker’s expression darkened as she considered the potentially devastating impact of the decision she was about to make,” students may read the words automatically; however, to understand the meaning behind the worker’s face darkening requires thinking about what the author means rather than only what the words mean.

An example of intermediate literacy strategies includes the use of graphic organizers to provide a visual structure to show relationships among concepts, terms, and ideas (Strangman, Vue, Hall, & Meyer, 2003). There are many types of graphic organizers (see examples under Web Resources at the end of this chapter) that can be used to facilitate comprehension. A helpful website that shows the process of defining key terms using graphic organizers is from Vanderbilt University (The IRIS Center, 2015). One featured organizer is called the *Frayer Model* (The IRIS Center, 2015) and requires students to write a word in the center of a page and then record defining information in a surrounding quadrant. The quadrant includes a space to write a definition, characteristics of the term and provides both examples and non-examples. Exploring vocabulary in this way helps students know how to make meaning of terms within the context of their reading, as well as in decontextualized situations.

Early research on the effects of teaching intermediate literacy strategies that can be generalized across the disciplines has shown positive results for improving students’ comprehension. There is an especially strong research base for the use of a specific kind of comprehension strategy instruc-

tion, which includes activating prior knowledge, predicting, visualizing, summarizing, and asking questions (Pressley, 2000). To date, findings from scientifically-based research evaluating the effects of comprehension strategy instruction can be readily found in the *National Reading Panel Report* (NRP; National Institute of Child Health and Human Development [NICHD], 2000), as well as in a research synthesis containing many studies published since the NRP (Butler, Urrutia, Buenger, & Hunt, 2010). As outlined in Chapter 2 of this textbook, scientifically-based research is especially valuable for informing teaching practices because it isolates the effects of instruction (e.g., comprehension strategies) from other factors that can also influence achievement (e.g., IQ, socioeconomic status, maternal education). Taken together, scientifically-based studies on comprehension strategy instruction show positive results and provide strong evidence for informing current teaching practices.

Despite evidence that teaching students to use these more generalizable comprehension strategies is beneficial, many content area teachers have been reluctant to teach the strategies or even cue students to use them (O'Brien, Stewart, & Moje, 1995). According to O'Brien et al., many content area teachers do not believe that teaching reading strategies is part of their role and that this sort of teaching is better left to English language arts or English teachers. Additionally, some teachers have communicated that practicing these strategies will take time away from content area instruction, and to them, the trade-off is not worth it (O'Brien et al., 1995). According to Shanahan and Shanahan (2012) content area teachers' lack of enthusiasm for using generalizable literacy strategies may be understandable, since learning academic content likely requires the use of both generalizable and more specialized strategies.

Disciplinary Literacy

According to McConachie and Petrosky (2010), disciplinary literacy refers to “the use of reading, reasoning, investigating, speaking, and writing required to learn and form complex content knowledge appropriate to a particular discipline” (p. 16). Research has recently been conducted within the area of disciplinary literacy which holds the potential to inform content area teaching. An account of this research will be presented next, followed by a discussion of the application of content area instruction.

Disciplinary Literacy Research

Current research has begun to focus on the use of discipline specific literacy strategies to improve both literacy and content area learning (Jetton & Shanahan, 2012; Moje, 2007, 2008; Shanahan & Shanahan, 2008, 2012; Shanahan, Shanahan, & Misischia, 2011). Discipline specific strategies can be added to the use of more generalizable comprehension strategies to reflect how disciplinary experts actually navigate and learn from reading texts in various disciplines (Shanahan et al., 2011).

Shanahan and Shanahan (2008) described the need for secondary teachers to teach the use of disciplinary literacy strategies to students, based on a two-year literacy initiative they undertook to explore the reading demands of various content area disciplines. Shanahan and Shanahan described preliminary findings of a study involving the analysis of how disciplinary experts read texts in their fields. For instance, based on observations of the experts thinking aloud as they read texts, Shanahan and Shanahan described how much intensive rereading mattered when mathematicians read texts in their field. An example provided is how words such as “the,” “a,” and “of,” which are normally not very meaningful, take on great significance when reading mathematics texts (see Table 2). Comprehension of mathematical texts also required being solution-focused and vigilant to detect and fix any comprehension problems.

Observations of chemistry experts' reading showed the need to divide attention among many different representations of information, including charts, graphs, symbols, and words written in texts. Alternatively, historians appeared more contextually-focused. Knowing who an author was

and the nature of the source material were observed to be essential for interpreting information read in historical documents. Unlike mathematicians and chemists, historians did not focus as much on facts or solutions but on making judgments and assessing credibility.

When Shanahan and Shanahan (2008) discussed teaching generalizable comprehension strategies in content areas, they found that individuals in their participant sample were not interested in teaching students how to “read,” which was similar to findings in the study by O’Brien et al. (1995). As a result of discussions with content area experts, Shanahan and Shanahan (2008) identified strategies that were more discipline specific, to which content area experts reacted more positively.

Table 2 summarizes ways that reading and writing across the disciplines are unique, and by analyzing how literacy happens within disciplines, more specialized strategies and approaches to learning can be created. Notice how in Table 2 the literacy features and demands of mathematics and science appear to overlap more with each other than with history, English, and the arts. In spite of certain similarities, the ways that mathematics, history, science, and arts texts are accessed, viewed, read, discussed, debated, critiqued, and written about often require the use of specialized strategies that differ from strategies used to comprehend narrative fiction. The strategies used depend, at least in part, on the nature of the texts and knowledge traditions associated with the various disciplines.

Table 2. *Examples of Specialized Literacy Within and Across Disciplines*

Discipline	Distinctive Features	Demands and Strategies
Mathematics	<ul style="list-style-type: none"> • Texts are typically concept and idea dense^a • Function words (“the,” “a,” “of”) and symbols (+, Σ) have specific meaning^{a,c} • Every word and symbol matters^{a,c} • Numbers may be uninterpretable without unit labels (meters) • Many technical words contain Latin or Greek roots and have specialized meaning, such as “trigonometry”^b • Many visual representations 	<ul style="list-style-type: none"> • Make meaning from every word, symbol, and their relations^a • Intensive reading and rereading to analyze details^a • Get more than just the “gist”; precision/error free focus^a • Identify all parts of words and their meaning • Divide attention across multiple representations of content^a • Switch strategies when reading prose, graphs, equations^a • Use mathematically-specific text features to make meaning • Construct proofs and deconstruct principles^a • Focus on what is actually in the text^a; authorship is less of a concern
Science	<ul style="list-style-type: none"> • Texts are typically concept and idea dense^a • Letters and numbers (H₂O) have unique meanings^a • Numbers may be uninterpretable without unit labels (grams) • Many technical words contain Latin or Greek roots that not only reveal meaning but help to enable scientific classifications^b • Descriptions of procedures and testing of hypotheses^a • Many visual representations • Analysis of procedures/performances, such as lab experiments 	<ul style="list-style-type: none"> • Make meaning from every word and symbol^a • Close reading and rereading^a • Focus on order of procedures^a • Conduct and record observations/lab experiments; critique procedures used by others^d • Detect and correct errors • Analyze key words and word parts for identification and classification^a purposes • Divide attention across multiple representations of content^a • Use scientific (and sometimes mathematical) text features to make meaning

Discipline	Distinctive Features	Demands and Strategies
History	<ul style="list-style-type: none"> • Texts contain historical events, which vary in concept and idea density^{a,e} • Authorship central to interpretation of texts^{a,b,h} • Contextual factors are key (who, what, where, and when), along with the author's purpose/perspective^a • Specialized terms such as "oligarchy" signal classification systems (e.g., forms of government)^a • Culturally specific words have specialized meaning^e • Information related to timelines and datelines^a 	<ul style="list-style-type: none"> • Analyze details related to the sources of information and why they were documented^{a,e} • Close reading, often across multiple documents/sources and in reference to one another (i.e., corroboration)^{a,e,h} • Analyze specialized words for meaning and at cultural, emotional, and cognitive levels^{a,e} • Analysis of documents (who, what, where, and when) is a primary method used to study texts^a • Use historical text features to make meaning^h • Intense critique of sources of texts^e
English	<ul style="list-style-type: none"> • Texts from genres such as novels, poetry, plays, and dramas^f • Contextual factors are key (who, what, where, and when), along with considering the author's purpose/perspective • Figurative language (e.g., metaphor, irony) and other abstractions used by authors^h • In analysis of texts, use of specialized terms such as "denouement" 	<ul style="list-style-type: none"> • Attend to characteristics of genres and their conventions (plot, setting, characters, conflict) • Determine the "gist" and analysis of details • Adjust speed of reading based on diverse genre and dialect features (poetry and drama vs. prose) • Analyze figures of speech in reference to context^h • Manage ambiguity and make inferences^{f,h} • Reconstruct story elements when presented nonlinearly • Use of specialized text features to make meaning
The Arts	<ul style="list-style-type: none"> • Texts include photographs, paintings, sculptures, sheet music, exhibits, and performances^g • Specialized materials such as canvases, acrylic paints, color wheels, musical instruments^g • Specialized terms such as "overture," "octave," "Cubism," "collage," "hue," and "gild" • Culturally specific words that have specialized meanings from languages other than English, such as "adagio" and "pirouette" • 2/4 and 4/4 designate rhythms, and many symbols (♯, ♭) have specialized meaning^g 	<ul style="list-style-type: none"> • Greater emphasis on listening, speaking, viewing, and performance aspects of literacy^g • Deconstruct ideas represented by design elements and principles, such as space, texture, color, shape, movement, rhythm, and balance related to visual arts, music, and dance^g • Frequent rehearsal and/or practice of artistic expressions based on modeling by peers, teachers, and other experts^g • Make meaning of words and concepts from languages other than English • Use of technical and specialized text features to make meaning

Note. Although English may include narrative and informational texts, informational texts are not included in the English section of the chart.

^a Mathematics, science, and history features and strategies adapted from Shanahan and Shanahan (2008).

^b Mathematics, science and history features and strategies adapted from Shanahan and Shanahan (2012).

^c Mathematics features and strategies adapted from Siebert and Draper (2012).

^d Science features and strategies adapted from Shanahan (2012).

^e History features and strategies adapted from VanSledright (2012).

^f English language arts features and strategies adapted from Hicks and Steffel (2012).

^g Arts features and strategies adapted from Moxley (2012).

^h Mathematics, science, history, and English features and strategies adapted from Moje (2007).

Differences in literacy-related knowledge traditions become most obvious when considering violations of these traditions. For example, what if the following sentence were encountered in a chemistry textbook:

The despondent chemist tenuously grasped the test tube and lifted it feebly over the dancing blue flame of the Bunsen burner, fluttering the cylinder back and forth like a tiny flag signaling his surrender to the very science he was studying.

Why is this funny? Because it reflects a clear violation of disciplinary communication style associated with chemistry. This same feeling of awkwardness can happen when someone tries to use a strategy that supports comprehension in one discipline but not in another. For example, if an author began a chapter on disciplinary literacy with the phrase, “This chapter focuses on different approaches to disciplinary literacy strategies instruction that content area teachers can use to maximize students’ understanding of content in academic disciplines,” students would likely appreciate the explicit guidance of what will be discussed. Conversely, if an author started a novel with the sentence, “This is a story about a boy whose dog dies after being bitten by a rabid wolf,” no one would want to read it because the ending is revealed before the story even begins—a clear violation of novel writing conventions. And finally, consider the physics textbook beginning with the phrase, “Once upon a time.” It is not that the sentences and phrases used above are technically incorrect; they just do not conform to the communication traditions associated with the corresponding discipline.

Incorporating Disciplinary Literacy Strategies into Content Areas

This chapter will now turn to providing examples of disciplinary literacy teaching and learning in action. The examples are not meant to encompass all of the dimensions featured in Table 2 or represent all content areas but are intended to contextualize selected specialized strategies relevant to mathematics, science, history, and the arts. Examples related to English are also provided in Table 2 as a comparison to other disciplines.

Mathematics

How do mathematicians learn about their discipline? They do a lot of reading and writing (Siebert & Draper, 2012). Recall from Table 2 that what makes learning mathematics and comprehending mathematics texts challenging is the fact that they are concept and idea dense, and they also require attention to many unique features within the texts. Mathematics texts do not just involve reading word problems but require translation and decoding of innumerable symbols that take up very little space but still carry a great deal of meaning. In addition, students must constantly use visual literacy strategies to make meaning of charts and graphs that are also dense. Given some of the differences in both text features and the ways that mathematics is discussed and written about, it makes sense why using only generalizable comprehension strategies such as graphic organizers and making predictions would not be sufficient to make meaning of mathematics texts.

When a mathematics teacher asks students to read a text to learn how to graph (x,y) coordinates, the text the students read would likely span very few pages. The ratio of words to symbols would be different than texts in most other disciplines, and unlike when reading English, history, or arts texts, reading about graphing (x,y) coordinates does not require the same type of thinking about the author’s purpose. The mathematics text probably contains a heading that summarizes what that section is about—perhaps something not very surprising like, “Graphing (x,y) Coordinates.” Not all students pay attention to text features such as chapter titles or headings because they may not realize these features reveal the big picture of what is coming. Their lack of attention may stem from being used to seeing chapter numbers in narrative texts with no title or vague titles such as, “Chapter 6: Fading Away.” Students may mistakenly believe that titles are not that important in revealing what a text is about, but in many disciplines, including mathematics, chapter titles and section headings are essential for directing attention and self-monitoring comprehension.

Across disciplines, titles and headings will likely differ, but what they have in common is that they give the reader a preview of what is coming. Ignoring text features can leave readers without a needed foundation to organize their thinking. Consider the following example. Suppose students are asked to examine two sets of numbers: 2, 3, 5, 7, 11 and 1, 4, 9, 16, 25. Students begin to notice that each set contains five numbers, they are all 25 or less, and most of them are odd. But if they

notice the heading preceding the number sets—*Prime Numbers and Squares*—the students will be immediately oriented to the meaning of the number sets (provided they know or are taught what prime numbers and squares are).

Teachers who model how to read headings in mathematics texts and discuss the importance of this reading behavior are preparing their students to comprehend complex texts. In addition, teachers who model mathematics specific literacy strategies require students to do some reconceptualizing of what a “text” actually is (Siebert & Draper, 2012). Recall that in Chapter 1, text was defined quite broadly as including not only printed documents like stories and articles but also diverse modes of communication, which in this case, include mathematical symbols, graphs, charts, equations, questions, and exercises. Because text features in mathematics may be different from text features in other disciplines, reminding students to “read every word” in a math text may not be good advice if texts do not contain very many words. Students who approach reading mathematics texts like they approach reading a novel will miss many important features designed to direct their attention and ease their learning. Perhaps the reminder to “read and interpret every feature of texts” is better advice.

Because students may not understand the role of all of the text features they encounter in reading within specific disciplines, teachers can explicitly show students how to make meaning of these features. Students may need to look at an example problem many times before they understand how to transfer the learning to a new problem. Looking back and forth at components until comprehension is solid is a great strategy to use in this situation, whereas, looking back at the same paragraph in a novel 20 times would probably not be a good strategy to apply. This is why teachers must teach disciplinary literacy strategies according to the processes and procedures that make sense, based on the conventions and content of their disciplines (Moje, 2007).

It should be noted that strategies such as the ones described above are not limited to traditional texts such as textbooks but lend themselves well to digital texts, which may also include applications (apps) and videos (Draper, Broomhead, Jensen, Nokes, & Siebert, 2010). Students may require different types of modeling to know how to access and interpret text features found in these media. An example includes showing students how to display a figure and its companion explanation using a split computer screen so looking back and forth is easier.

History

How do historians learn about their discipline? They do a lot of reading and writing (VanSledright, 2012). Reading historical texts is central to gaining an understanding of the past and its implications for the future. To some, it may seem as if historical documents largely resemble texts students encounter in English, but readers must approach some history texts in markedly different ways (see Table 2). Texts read in a history class may include sentences and paragraphs but also may include many visuals, such as charts, figures, and even photographs of clothing (Campbell, 1996), since meaning can be made of each of these visual representations. Historical texts reveal the author’s perspective and context, with more emphasis on these attributes than occurs in most other disciplines. A person who writes history also shares his or her attitudes, culture, biases, political and/or religious beliefs. Similarly, a person who reads history filters what is read according to his or her own attitudes, culture, biases, political and/or religious beliefs. So reading history without connecting the “who, what, where, and when” of the information to the person who created it, and to the person reading it, is like finding a bottle of soda on the ground and just opening it up and drinking it. Historians are especially reluctant to consume things when they do not know where those things came from.

Like mathematicians, historians use specialized strategies to make meaning of texts they read (VanSledright, 2012). Think for a moment about a history teacher handing students a copy of a document discussing Prohibition, for the purpose of generating debate about the legalization of mari-

juana in the United States. Prior to reading the document, the teacher would likely direct students to determine who wrote it, as well as to note the year the document was written to contextualize it within the attitudes, beliefs, and customs of that time period. Next, the teacher might ask students to read the document to get the gist of what is communicated, and then reread the document while analyzing the information from varying perspectives. Each idea would be carefully considered in reference to the author, the time of the writing, the issue, and through the lens of today. In effect, literacy instruction in history involves a great deal of contextualization of every fact, opinion, word used, and perspective of those who lived before and after an event that took place.

Science

How do scientists learn about their discipline? They, like mathematicians and historians, do a lot of reading and writing (Shanahan, 2012). Mathematics and science actually share some important characteristics in reference to strategies students can use to understand what they read, write, and discuss in science classes, so it is useful to borrow from the mathematics strategies previously discussed (see Table 2). For example, science also uses many symbols, graphics, and charts that require focused processing of visual information, as well as words, sentences, and paragraphs. For subjects which are more classification oriented, there are additional strategies worth discussing to help students make meaning of what they read.

Just as in the section of this chapter discussing mathematics and history where ideas of what a text is needed to be broadened, with science, ideas about what a text is need to be extended even further. Visual literacy strategies are needed for looking through a microscope at a cell and labeling the mitochondria and are also needed during the dissection of a frog, while students try to find, label (and spell!) the pancreas. Are magnified cells and frogs “texts”? If students are asked to make meaning of them, then arguably they are. What is more, students may be required to view many of these texts concurrently, so rather than just looking back and forth between words and figures in a text, biology students may be required to divide their attention across a textbook, a frog body, a microscope, a lab packet, and more.

One troubling aspect raised by Shanahan (2012) about the way science is taught in some schools is when teachers completely avoid the use of science texts because teachers believe that the texts are too difficult for students to understand. As an alternative, teachers may choose to present content using other means, such as orally or by facilitating discussions. A danger to this approach is that students may never become skilled at reading and interpreting science texts if they do not have opportunities to engage in reading about science. Furthermore, avoiding the use of science texts limits students’ ability to learn more about science outside of these contexts (i.e., college and career settings).

An alternative to avoiding the use of science texts was teaching students how to read and understand them, using some of the same disciplinary literacy strategies experts use. Science texts often contain unique features, such as dense classification charts based on nominalized terms. Nominalization is when words such as “dissolve” become more abstract by the addition of endings which turn verbs into nouns (*dissolution*; Shanahan, 2012). Similar to mathematics texts, readers of science texts must switch strategies when going from sentences and paragraphs to viewing formulas or graphics to reading paragraphs again. Differences in the density of idea units (sometimes referred to as “lexical density”; Shanahan & Shanahan, 2008) can make scientific texts especially challenging for students to read and remain motivated to understand.

An example of this difficulty with reading dense science texts is discussed by Moje (2007), who described a student’s reaction to such an encounter. The student shared, “You read the whole section [of a biology book] and you’re like, okay, you gotta read it four times just to understand it a little bit” (p. 34). The student then remarked, “It’s just written *the way adults read it*.... And they have the *knowledge* to do that.... And they write it in *their own language* that only them can under-

stand” (emphases in original; p. 34). The student continued to describe how all of the big words and adult language made the texts inaccessible to her to the point that “it gets you brain dead” (p. 34). This student’s reaction to the challenges of reading texts in the disciplines provides support for the need for explicit instruction related to how to navigate disciplinary texts.

The Arts

How do artists, musicians, and dancers learn about their discipline? They engage in reading and writing like other content area experts; however, many specialists in the arts also spend considerable time engaging in and viewing creative expressions of their disciplines (Moxley, 2012), perhaps in slightly different ways than what has been described so far. In the arts, the idea of what constitutes texts needs to be broadened once again to include even more diverse modes of communication such as paintings, drawings, photographs, sculptures, dance movements, and musical performances. Teaching a student to play a musical instrument would likely not involve poring over textbooks and articles and then writing a research paper about playing the instrument. Instead, the student would likely view a model of someone playing the instrument so that he or she could carefully observe body movements, postures, and the creation of music. Reading about how to place a violin under the chin, versus viewing a picture or even experiencing an expert placing the violin under a student’s chin, provide vastly different information to a novice musician. In addition to modeling, teachers of music observe a student practicing the instrument and provide frequent feedback to help the student progress in learning. When considering examples such as these, it is easy to see how important certain aspects of literacy are to the arts, such as viewing and performing.

Disciplinary literacy in the arts makes unique demands on teachers and students, with examples included in Table 2. Specialized materials do not include supplies such as Bunsen burners or graphing calculators but include materials like paints, sheet music, and color wheels. As in many other disciplines, learning in the arts requires focused processing of visual and/or auditory information, as well as the integration of that information with other print-based modes of communication, such as articles, books, reviews, and concert programs. An important aspect of musical and performing arts is engagement in rehearsals, which involve repeated practice that culminates in performances that eventually meet standards to be more formally shared with others. Just as the work of a student learning science may reach a certain standard to be presented at a science fair or conference, the work of individuals in the arts often culminates in the creation of portfolios, exhibitions, or stage performances.

The specialized nature of literacy in the arts can again be understood by considering violations of conventions within the discipline. Recall our despondent chemist who was waving his test tube in surrender. Imagine if he decided to express the findings of his experiment by engaging in interpretive dance or by breaking into song! Likewise, imagine an audience’s reaction if a performance artist approached a podium to give a long speech describing a series of dance movements. Teaching students about various modes of expression in the arts and other disciplines does not mean unnecessarily restricting their response patterns but involves helping them understand what their response patterns mean within each discipline.

Teachers in the arts can guide students in using literacy strategies to learn within their discipline. For example, a text feature in theater might include the placement of masking tape on a stage to signal location of movement. While some students may be able to deduce the meaning of this cue, other students may need more direct teaching to comprehend the meanings of arts-based terms and symbols, such as stage tape. For this type of instruction to occur, it may be helpful for theater teachers to think about a stage as a text and how stage tape acts as a text feature that has specialized meaning that can be taught. Likewise, thinking about other arts-based texts such as photographs, color wheels, and musical scores can help prompt teachers to explain the meaning of discipline specific text features such as color, space, texture, and movement (Moxley, 2012).

In summary, texts in mathematics, history, science, and the arts have many unique features that potentially pose challenges for students trying to gain understanding of the discipline specific content these texts contain. It is for this reason that teachers need to address the challenges these texts pose through the teaching of literacy strategies, including disciplinary literacy strategies, to scaffold learning. Although it is not realistic to expect secondary students to become disciplinary experts (Heller, 2010), it is realistic for students to engage “in the kinds of knowledge production and representation, on a limited scale, of course, that members of the various disciplines enact on a regular basis” (Moje, 2010, p. 275). Both teachers and secondary students need to think about, learn, and try out specialized literacy strategies to communicate and learn within and across the disciplines.

Culturally Responsive Teaching

Up to this point, what has been discussed in this chapter has emphasized the importance of teaching students how to use literacy strategies to improve learning in content area classes. In addition to this approach to teaching, it is also important to develop skills and strategies to support students related to cultural factors that also play a role in facilitating learning. One approach involves using teaching that is “culturally responsive” (Gay 2010), which includes thinking beyond teaching content to thinking about teaching *students*. Culturally responsive teaching involves ways of educating students based on principles of social justice. A key purpose of culturally responsive teaching is to provide all students with learning opportunities, regardless of their gender, race, ethnicity, or first language. (Ladson-Billings, 1994). Moje (2007) has characterized this trait as teaching *with* social justice. An equally important purpose discussed by Moje is the idea of teaching *for* social justice. Teaching with social justice, referred to by Moje as teaching in socially just ways, focuses on the process of teaching that includes providing access to learning opportunities. Teaching for social justice leads to more socially just outcomes designed to address and correct unjustified power differences in society. Each of these concepts will be discussed more in the next section as they have bearing on culturally responsive teaching.

Culturally Responsive Teaching *with* Social Justice

Culturally responsive teaching with social justice brings cultural and linguistic strengths of students into the classroom. This approach requires being deliberate about getting to know and understand the knowledge and experiences students have acquired outside of school, along with respecting, valuing, and using these “funds of knowledge” (Moll, Amanti, Neff, & Gonzalez, 1992) when teaching. A primary goal of culturally responsive teaching is to ensure that students from diverse backgrounds have meaningful opportunities to experience quality instruction that consistently incorporates cultural components to support learning.

Culturally responsive teachers support students by seeking out knowledge about different cultures. Teachers may do this by asking students direct questions, asking students to complete interest inventories, meeting with families, attending cultural events in communities, and seeking out information about cultural traditions through reading, viewing, and traveling. Culturally responsive teachers also seek to understand how their own backgrounds, experiences, and biases may influence their teaching, such as having different expectations for various student groups based on stereotypes.

One way that researchers have learned about culturally responsive teaching is by exploring and deconstructing examples of what happens in classrooms. For example, research by Moje and Hinchman (2004) highlighted the culturally responsive practices that a seventh grade science teacher named Ms. Hall enacted. Ms. Hall was observed teaching a unit related to communicable diseases in a classroom that included a group of mostly African American students. Moje and Hinchman observed that Ms. Hall appeared to have gotten to know her students well and used that knowledge to help students connect their everyday language and experiences to new concepts being taught.

Ms. Hall made curriculum changes to bring students' interests into the classroom, as well as encouraged her students to communicate using language most familiar to them, rather than demand that discussions use only Standard American English. Ms. Hall also decided to change texts from ones that had little to do with her students' lives to texts that her students would be able to relate to more easily. She strove to meet lesson objectives using resources that better matched her students' backgrounds and interests.

Research on culturally responsive teaching has mostly included the use of qualitative methods, such as observing and interviewing small samples of teachers and students (Epstein, Mayorga, & Nelson, 2011; Ladson-Billings, 1994; Moje & Hinchman, 2004). These research methods have been most useful for exploring culturally responsive teaching because to date, there are no standardized prescriptions for how to enact culturally responsive teaching. Engaging in this kind of teaching depends on characteristics of students in specific classrooms, as well as characteristics of their families and communities. Culturally responsive teaching is complex and requires flexibility, which is why culturally responsive teaching has been mostly studied using qualitative forms of inquiry. Based on what has been learned through research, culturally-based theories of teaching continue to be refined to better inform teaching practices.

Culturally Responsive Teaching *for* Social Justice

Culturally responsive teaching for social justice goes beyond providing access to learning opportunities and focusing on how to effectively help students learn and apply content knowledge, to answering the question of how students can “question, challenge, and reconstruct knowledge” (Moje, 2007; p. 4). In other words, rather than the primary focus being on bridging what students know with what they need to learn, culturally responsive teaching for social justice includes a focus on how what is learned can be used to address power and oppression in society. Some researchers have used the term “culturally-relevant teaching” to describe this additional focus (Ladson-Billings, 1994), while other researchers have included these components within the framework of culturally responsive teaching (Moje, 2007).

A book chapter by Moje (2007) entitled *Developing Socially Just Subject Matter Instruction: A Review of the Literature on Disciplinary Literacy Teaching* represents a unique effort to synthesize culturally responsive teaching with disciplinary literacy, which is not an easy task. Recall that teaching students to use disciplinary literacy strategies requires initiation into established traditions of academic disciplines, which Moje describes as students needing “access to knowledge deemed valuable by the content domains” (p. 1). While this purpose may seem in opposition to the ideas of using and valuing students' knowledge and experiences, it actually is not. Culturally responsive disciplinary literacy instruction involves respecting what students know and can do, creating bridges between out-of-school knowledge and disciplinary knowledge, and teaching students to critique ways in which knowledge traditions can transmit or transcend oppression in society. Unfortunately, there are some barriers that may exist to becoming a more culturally responsive teacher; however, becoming aware of these barriers can be a helpful step toward learning to overcome them.

The Influence of Apprenticeship of Observation

One possible barrier to becoming a culturally responsive teacher is based on a theory by Lortie (1975) known as “the apprenticeship of observation” (p. 61). This theory cautions that preservice teachers may believe that because they observed so much teaching happen when they were in school that teaching merely involves replicating what they experienced (Lortie, 1975). This belief is especially problematic when preservice teachers who attended mostly suburban and rural schools rely on approaches they observed as the basis to teach students from culturally- and linguistically-diverse backgrounds.

I once saw an example of this kind of incompatibility while observing a young White preservice teacher who was trying to make a point to a group of mostly Black students about the influence of wealth on a person's life. During the lesson, the preservice teacher provided an example of wealth by referring to Bill and Melinda Gates, who are wealthy White business people in the U.S. Some students began nodding their heads at the reference, whereas other students just looked puzzled. Finally, a student raised her hand to generate a more familiar reference point for wealthy people and asked, "You mean like Jay Z?" When the teacher nodded hesitantly (he did not seem certain who Jay Z was), an audible, "Ohhhhh," rippled through the classroom. Essentially, the inquiring student created a culturally responsive reference point for the rest of the students rather than the teacher creating it.

When I debriefed with the preservice teacher after his lesson, I recounted with him what I had observed. He said that he thought his reference to the Gates couple was a good example and faulted the students for not understanding it. He had not even considered the idea of asking his students to generate examples of people who are wealthy, and he did not seem to appreciate the benefits that accompany using students' funds of knowledge in teaching. Perhaps it had not occurred to him that there are people of color who are wealthy as well. My impression was that the preservice teacher planned examples that helped him make connections but had not yet developed the insight to realize why his example failed to work within this context. The example illustrates the importance of teaching in ways that go beyond a single perspective.

Disciplinary literacy and culturally responsive teaching rely on teachers being open to perspectives outside of their own, being flexible in how they teach content, and situating teaching and learning within a social justice framework. When content area teachers incorporate disciplinary literacy strategies into their teaching, their students' understanding of the content can be extended. When content area teachers teach in culturally responsive ways, they can help students better leverage discipline specific knowledge to negotiate a world that privileges some at the expense of others.

Summary

Teaching literacy strategies is often associated with English language arts; however, this chapter has stressed the importance of literacy as being fundamental to learning in all academic disciplines. While teaching basic literacy skills and generalizable comprehension strategies have a strong research base for promoting comprehension, disciplinary literacy strategies are conditional and require deep understanding of the knowledge traditions and communication styles used within and across disciplines. Texts used in mathematics, history, science, and the arts differ in important ways that require content area teachers to know how to use the most effective literacy strategies. Because an emphasis on the use of disciplinary literacy strategies is so new, more research is needed to determine the degree to which students actually benefit from the instruction.

In addition to teaching disciplinary literacy strategies, teachers can adjust what they teach and how they teach according to the cultural characteristics and funds of knowledge of their students. Learning about the knowledge and experiences that students bring into school is consistent with culturally responsive teaching and socially just educational practices. Students can also be taught to use discipline specific knowledge to negotiate a complex, and at times, unjust world. Work by Moje (2007) has affirmed the importance of not only teaching *with* socially just methods but teaching *for* social justice. Using both culturally responsive teaching practices and disciplinary literacy strategies is essential to address the needs of an increasingly diverse population of students who are expected to achieve high levels of literacy and content knowledge across all academic disciplines.

Questions and Activities

1. How are generalizable literacy strategies and disciplinary literacy strategies different? Describe why and how they can be explicitly taught in content area classes.
2. Do you believe that content area teachers should be teaching literacy strategies? Discuss your beliefs about teaching literacy strategies in content area classes.
3. Identify examples of texts you have encountered in different disciplines and discuss the different strategies you have applied to comprehend and learn from them.
4. What is culturally responsive teaching, and why is it important to serving the needs of a diverse student population?
5. Discuss ways that disciplinary literacy strategies can be used along with culturally-responsive teaching methods. What are some of the challenges teachers face when trying to meet the needs of all students in content area classes?

Web Resources

- Disciplinary literacy in fine arts and creativity from the Wisconsin Department of Public Instruction <http://cal.dpi.wi.gov/sites/default/files/imce/cal/pdf/fine-arts-newsletter7.pdf>
- Examples of graphic organizer templates available at <http://aem.cast.org/about/publications/2003/ncac-graphic-organizers-udl.html#.Vfcw4jZRGUk>
- IRIS Modules main page <http://iris.peabody.vanderbilt.edu/iris-resource-locator/>
- IRIS Module on secondary reading that includes the Frayer model <http://iris.peabody.vanderbilt.edu/module/sec-rdng/>
- The Center for Culturally Responsive Teaching and Learning <http://culturallyresponsive.org/>
- Equity Alliance <http://www.equityallianceatasu.org/about>
- Timothy Shanahan's literacy blog <http://www.shanahanonliteracy.com/>

References

- Alexander, P. A., & Fox, E. (2004). A historical perspective on reading research and practice. In R. B. Ruddell & N. J. Unrau (Eds.), *Theoretical models and processes of reading* (5th ed., pp. 33-68). Newark, DE: International Reading Association, Inc.
- Butler, S., Urrutia, K., Buenger, A., & Hunt, M. (Eds.). (2010). *A review of the current research on comprehension instruction* (Contract No. ED-08-CO0123). National Reading Technical Assistance Center, RMC Research Corporation. Retrieved from U.S. Department of Education <http://www2.ed.gov/programs/readingfirst/support/compfinal.pdf>
- Campbell, C. (1996). The meaning of objects and the meaning of actions: A critical note on the sociology of consumption and theories of clothing. *Journal of Material Culture*, 1, 93-105. doi:10.1177/135918359600100105
- Draper, R. J., Broomhead, P., Jensen, A. P., Nokes, J. D., & Siebert, D. (Eds.). (2010). *Reimagining content area literacy instruction*. New York, NY: Teachers College Press.
- Epstein, T., Mayorga, E., & Nelson, J. (2011). Teaching about race in an urban history class: The effects of culturally responsive teaching. *The Journal of Social Studies Research*, 35, 2-21. Retrieved from http://www.academia.edu/3098949/Teaching_about_Race_in_an_Urban_History_Class_The_Effects_of_Culturally_Responsive_Teaching
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). New York, NY: Teachers College Press.

- Graham, S. (2009–2010, Winter). Want to improve children’s writing? Don’t neglect their handwriting. *American Educator*, 33(4), 20–27, 40. Retrieved from <http://www.aft.org/sites/default/files/periodicals/graham.pdf>
- Heller, R. (2010). In praise of amateurism: A friendly critique of Moje’s “Call for change” in secondary literacy. *Journal of Adolescent & Adult Literacy*, 54, 267–273. doi:10.1598/JAAL.54.4.4
- Hicks, T., & Steffel, S. (2012). Learning with text in English language arts. In T. L. Jetton & C. Shanahan (Eds.), *Adolescent literacy in the academic disciplines: General principles and practical strategies* (pp. 120–153). New York, NY: The Guilford Press.
- Jetton, T. L., & Shanahan, C. (Eds.). (2012). *Adolescent literacy in the academic disciplines: General principles and practical strategies*. New York, NY: The Guilford Press.
- Ladson-Billings, G. (1994). *Dreamkeepers: Successful teachers of African American children*. San Francisco, CA: Jossey-Bass.
- Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago, IL: The University of Chicago Press.
- McConachie, S. M., & Petrosky, A. R. (2010). *Content matters*. San Francisco, CA: Jossey-Bass.
- Moje, E. B. (2007). Developing socially just subject-matter instruction: A review of the literature on disciplinary literacy teaching. *Review of Research in Education*, 31, 1–44. doi:10.3102/0091732X07300046001
- Moje, E. B. (2008). Foregrounding the disciplines in secondary literacy teaching and learning: A call for change. *Journal of Adolescent & Adult Literacy*, 52, 96–107. doi:10.1598/JAAL.52.2.1
- Moje, E. (2010). Response: Heller’s “In praise of amateurism: A friendly critique of Moje’s call for change in secondary literacy.” *Journal of Adolescent & Adult Literacy*, 54, 275–278. doi:10.1598/JAAL.54.4.4
- Moje, E. B., & Hinchman, K. (2004). Culturally responsive practices for youth literacy learning. In T. L. Jetton & J. A. Dole (Eds.), *Adolescent literacy research and practice* (pp. 321–350). New York, NY: Guilford.
- Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice*, 31, 132–141. doi:10.1080/00405849209543534
- Moxley, K. (with Batcheller, J., Burditt, L., Gamble, S. Gumm, A. J., Paas, J., & Thurston, J.) (2012). Learning with text in the arts. In T. L. Jetton & C. Shanahan (Eds.), *Adolescent literacy in the academic disciplines: General principles and practical strategies* (pp. 227–266). New York, NY: The Guilford Press.
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common core state standards for English language arts & literacy in history/social studies, science, and technical subjects*. Washington DC: author. Retrieved from http://www.corestandards.org/wp-content/uploads/ELA_Standards.pdf
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups*. (NIH Publication No. 00–4769). Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf>
- O’Brien, D. G., Stewart, R. A., & Moje, E. B. (1995). Why content literacy is difficult to infuse into secondary school: Complexities of curriculum, pedagogy, and school culture. *Reading Research Quarterly*, 30, 442–463. doi:10.2307/747625
- Perfetti, C. A. (1985). *Reading ability*. New York, NY: Oxford University.

- Pressley, M. (2000). What should comprehension be the instruction of? In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. III, pp. 545-561). New York, NY: Routledge.
- Schoen, L. T., & Fusarelli, L. D. (2008). Innovation, NCLB, and the fear factor the challenge of leading 21st-century schools in an era of accountability. *Educational Policy*, 22, 181-203. doi:10.1177/0895904807311291
- Shanahan, C. (2012). Learning with text in science. In T. L. Jetton & C. Shanahan (Eds.), *Adolescent literacy in the academic disciplines: General principles and practical strategies* (pp. 154-171). New York, NY: The Guilford Press.
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content area literacy. *Harvard Educational Review*, 78, 40-59. doi:10.17763/haer.78.1.v62444321p602101
- Shanahan, T., & Shanahan, C. (2012). What is disciplinary literacy and why does it matter? *Topics in Language Disorders*, 32, 7-18. doi:10.1097/tld.0b013e318244557a
- Shanahan, C., Shanahan, T., & Mischia, C. (2011). Analysis of expert readers in three disciplines: History, mathematics, and chemistry. *Journal of Literacy Research*, 43, 393-429. doi:10.1177/1086296X11424071
- Siebert, D., & Draper, R. J. (2012). Reconceptualizing literacy and instruction for mathematics classrooms. In T. L. Jetton & C. Shanahan (Eds.), *Adolescent literacy in the academic disciplines: General principles and practical strategies* (pp. 172-198). New York, NY: The Guilford Press.
- Strangman, N., Vue, G., Hall, T., & Meyer, A. (2003). *Graphic organizers and the implications for universal design for learning*. Wakefield, MA: National Center on Accessing the General Curriculum. (Links updated 2014). Retrieved from <http://aem.cast.org/about/publications/2003/ncac-graphic-organizers-udl.html>
- The IRIS Center. (2015). *Secondary reading instruction (part 1): Teaching vocabulary and comprehension in the content areas*. Retrieved from <http://iris.peabody.vanderbilt.edu/module/sec-rdng/>
- VanSledright, B. (2012). Learning with texts in history: Protocols for reading and practical strategies. In T. L. Jetton & C. Shanahan (Eds.), *Adolescent literacy in the academic disciplines: General principles and practical strategies* (pp. 199-226). New York, NY: The Guilford Press.

13. World Language and Literacy Learning

Joanne E. O'Toole

Abstract

World language education in the U.S. has been conceived of in myriad ways since its formal introduction in the 19th century, with more and less attention to students' literacy development along the way. This chapter provides an overview of the shifts within the field historically and into the current time, explains why these shifts occurred, and identifies their impact on literacy development in the secondary world language classroom. It also delves into recent influences on the field of English language literacy education that have informed and influenced world language education, and it models how current standards-based world language educational practices can and do promote secondary students' literacy development.

Learning Objectives

After reading this chapter, readers will be able to

- identify methods and approaches to world language education over time and their attention to literacy development;
- discover multiple ways that literacy is embedded into current concepts, practices, and guiding documents of world language education;
- design standards-based instruction for the world language classroom that promotes secondary students' literacy development.

Introduction

Whether the field is referred to as world language, modern language, foreign language, language other than English (LOTE), or second language education, each of its many labels showcases the same word: *language*. If you ask middle- and high-school students in this field what they want to be able to do with the new language they are learning, they will likely respond that they want to be able to *speak* it. Invisible in these labels and the minds of most world language students are additional concepts of literacy. In today's world language classroom, literacy refers to the capacity to communicate, or perform, in the interconnected ways and for the varied purposes that real-world contexts demand through listening, reading, viewing, writing, and speaking. Those real-world contexts—for world language learners—typically embody the perspectives of the culture studied, thus adding an additional layer of complexity to the task of becoming literate in the new language. This definition of literacy is at the heart of the current learning standards, the *World-Readiness Standards for Learning Languages* (National Standards in Foreign Language Education Project [NSFLEP], 2015), that will be discussed more fully later in this chapter. Note that this definition of literacy, as well as some other definitions used in this chapter, vary slightly from those stated in Chapter 1 of this textbook, since world language education is a distinct field with its own unique, yet related, definitions.

The view of literacy in the world language classroom defined above is relatively new. This chapter provides an overview of how world language educators have thought about literacy over time, how early literacy practices in world language education align to the current definition, and what events and influences have led to the current definition and related practices. The chapter also identifies multiple ways in which literacy is addressed in current concepts and practices of world language education, and it includes teaching strategies for promoting standards-based literacy development within the secondary world language classroom.

Historical Perspectives on World Language Education and Literacy

Eight major methods and approaches to world language education have been implemented in the U.S. since the 19th century. A *method* is a fixed set of procedures that teachers and students must follow, while an *approach* is more flexible in practice (Omaggio Hadley, 2001). Each of these eight methods and approaches is described below and represented in Table 1 to the extent that its attention to literacy is made visible. The purpose for this section is to show the reader how literacy has been addressed in varying ways and to varying degrees in the world language education classroom over time. The methods and approaches are presented in the order they were introduced. As they are all still used to some degree in the U.S. and elsewhere, they are written about in the present tense.

Table 1. *Literacy Elements of Methods and Approaches to World Language Education*

Method ^a	Reading	Listening	Viewing	Speaking	Writing	Real-world Purposes	Integrated Communication
Grammar-Translation	•				•		
Direct	•	•	•	•	•	•	
Reading Approach	•						
Audiolingual	•	•		•	•		
Cognitive Code	•	•		•	•	variable	
Affective-Humanistic	variable	•		•	variable	variable	
Input: TPR		•		•		variable	
Input: TPRS	•	•	•	•	variable	variable	•
Communicative Language Teaching	•	•	•	•	•	•	•

Note. TPR = Total Physical Response; TPRS = Teaching Proficiency through Reading and Storytelling. Variable = the indicated skill area may or may not be addressed by the particular method or approach.

^a Methods are from a variety of sources related to historical perspectives described within this chapter.

Nineteenth to 20th Century: First Methods and Approaches

Grammar-translation method

Although humans have learned languages of other lands and peoples for millennia, formal world language education traces its roots to the Renaissance and the teaching of Latin and Greek. In the 19th century, the method used to teach these two classical languages took on a new name and a new role. The *Grammar-Translation Method*, as it is now known, was adopted for use in the teaching of modern world languages. What gives the method its name is its attention to the memorization

of grammar rules and the line-by-line translation of authentic target language literary texts into the native language. The word *authentic* means that the literature was written by native speakers for native speakers of the language in which it was written. *Target language* refers to the language being studied, while *native language* is the first or home language of the students (Shrum & Glisan, 2010).

Grammar-Translation focuses on print literacy as students closely read texts and then write translations and answers to comprehension questions and grammar exercises. The close way in which the literature is read and translated can be particularly effective in helping advanced students understand precise meanings (Horwitz, 2008), and reading authentic literature can deepen students' understandings of the perspectives of the target culture. *Target culture* refers to the culture associated with the language, and in this case, literature being studied.

Although Grammar-Translation had a significant impact on how modern world language education practices were established, it limits what students learn to do with the target language. As a result, alternative methods and approaches began to appear in the early 20th century.

Direct method

The *Direct Method*—unlike Grammar-Translation—exclusively engages students with the target language with an emphasis on oral language. Students listen to teacher-delivered target language conversations and simultaneously view accompanying gestures and visuals to make meaning of what is being said, to acquire vocabulary, and to determine rules of language. What students discover through listening and viewing is then reinforced as they read texts that contain the same words and concepts. Students apply what they have learned in guided spoken interactions with others. With everyday topics being the focus of both oral and written texts, the Direct Method is intended to prepare students for real-world communication.

Reading approach

The *Reading Approach* emerged to fill a gap when there were too few U.S. teachers proficient enough in the target language to deliver the conversational instruction required by the Direct Method (Celce-Murcia, 2001). This approach returned to the text-based study of language without specific requirements for target- or native-language use by the teacher or students. As the name implies, the Reading Approach has a singular focus: for students to be able to read target language texts. The study of vocabulary and grammar is emphasized only to the degree that it facilitates students' ability to comprehend increasingly more complex texts. Little to no attention is paid to oral language.

Mid- to Late-20th Century: Theoretically-Based Methods and Approaches

As the 20th century progressed, the field of world language education became increasingly integrated with the fields of psychology and linguistics. Psychology is the study of the human mind and behaviors, and linguistics is the study of language and its structure. These were appealing partners as they provided systematic ways to think about language learning, and relatedly, language teaching. As a result, methods and approaches to world language education introduced in the mid- to late-20th century were built on theories, research, and principles from these and other closely related fields.

Audiolingual method

The *Audiolingual Method* introduced in the mid-20th century is based on two key assumptions: 1) learning a second language is similar to learning a first language, which is based on a theory of linguistics, and 2) language learning is habit formation, which is based on a theory from behaviorist psychology. In line with these ideas, the Audiolingual Method prescribes strict procedures that begin with students listening to a target language dialogue and orally imitating what they hear. Oral repetition and drills of dialogue content are used to help students build the “habit” of spoken

language. Reading and writing are introduced later to reinforce concepts initially learned through oral language. Although students engage in listening, speaking, reading, and writing, the Audiolingual Method does not prepare students for communication in real-world contexts.

Cognitive code method

The *Cognitive Code Method* was developed as a response to the limitations of the Audiolingual Method and incorporated newer theories of linguistics and cognitive psychology. Cognitive Code starts with what students already know about language and then gradually builds their capacity to speak, listen, read, and write in the target language from the starting point of that prior knowledge. During this process, students are expected to generate their own meanings, acquire the rules for language use, build communicative competence, and be able to perform in the target language. In cognitive psychology, *rule acquisition* is the subconscious process of “picking up” how language works, *competence* refers to a learner’s instinctive knowledge of the language system, and *performance* is the learner’s ability to produce the language (Shrum & Glisan, 2010).

Affective-humanistic approaches

From the 1970s to 1980s, humanistic psychology influenced world language education by introducing a variety of approaches that primarily plan for comfortable, low-anxiety learning environments. For example, the *Community Language Learning* approach borrowed techniques from the field of counseling to build students’ confidence to speak the target language, first with the teacher, and then with other students. Although the Affective–Humanistic approaches are varied in their influences and strategies, what they share is the focus on building students’ comfort and confidence more than any particular literacy skills.

Input methods

Input—or Comprehension-based—methods were introduced at around the same time as Affective–Humanistic approaches. Input methods are based on understandings from linguistics and cognitive psychology that children require time and large quantities of comprehensible input to acquire a language. *Input* in this context refers to the language children hear. A well-known Input method known as *Total Physical Response* (TPR) requires students to respond physically rather than verbally as they listen to commands given in the target language. Listening is primary and is considered to be the first literacy-related skill that precedes all others. Speaking then emerges when students feel ready. Limitations of Total Physical Response to promote students’ target language reading and writing motivated the creation of an enhanced Input method in the 1990s, known as *Total Physical Response Storytelling* (TPRS). With its increased emphasis on reading, TPRS later came to stand for *Teaching Proficiency through Reading and Storytelling*.

Communicative language teaching

Communicative Language Teaching (CLT), which also emerged in the 1970s and 1980s, promotes students’ target language learning through engagement with meaningful tasks, content, or texts that gradually increase in complexity. *Tasks* refer to target language interactions that simulate or prepare students for real-world activities. Auditory and written target language input is typically authentic in nature and prepares students to engage in contextualized and culturally-appropriate products, such as conversations and role plays. Communicative Language Teaching in particular emphasizes the development of *communicative competence*, which is the ability to use the words and rules of a language in ways appropriate to the given culture through a set of communication strategies.

Returning to the world language definition of literacy presented at the beginning of this chapter, it is evident that the methods and approaches introduced over the last two centuries have varied in the ways and degrees to which they promoted students’ literacy in the world language class-

room. While attention has been paid to greater and lesser extents to the four traditional skill areas of reading, writing, speaking, and listening, only more recently have methods and approaches become intentional in connecting language learning to real-world purposes, and interconnecting the various skills and modes of communication used to carry out real-world purposes.

Preparations for 21st Century World Language Education and Literacy

Toward the end of the 20th century, the development and publication of language proficiency guidelines and national language learning standards introduced a new and consistent vision for what students should know and be able to do in the world language classroom. The following section of this chapter describes the proficiency guidelines and learning standards and explains how they inform both world language teaching and learning.

Introducing Proficiency

Nearing the end of the 20th century, the field of world language education had developed a number of methods and approaches but was without an “organizing principle” that could create consistency and withstand shifts in theories and philosophies (Omaggio Hadley, 2001, p. 88). It was in 1979 that a U.S. presidential commission on language and international studies determined that *proficiency* would serve as that organizing principle. *Proficiency* refers to what a person can and cannot do with language—with an emphasis on its spontaneous and real-world application—across four skill areas of speaking, writing, reading, and listening, which are four key elements of this chapter’s definition of literacy.

In 1982, the American Council on the Teaching of Foreign Languages (ACTFL) published the first proficiency guidelines for academic purposes, which they developed from existing governmental proficiency guidelines. The current *ACTFL Proficiency Guidelines 2012* (ACTFL, 2012a) describe reading, writing, speaking, and listening proficiency for five ranges (i.e., Novice, Intermediate, Advanced, Superior, and Distinguished) and three sub-levels (low, mid, and high) found within each of the first three ranges. Proficiency guidelines serve to help world language educators plan, instruct, and carry out assessments in ways that both target their students’ current level(s) of proficiency and promote students’ proficiency development irrespective of the method or approach to instruction they use.

Unlike first language literacy instruction that typically takes place at every grade level from kindergarten to 12th grade (K-12), world language instruction has varied implementation from state to state and district to district. As a result, an elementary student in a K-12 world language program may demonstrate the same level of proficiency in one or more areas (e.g., speaking) as a middle or high-school student in a grades 7-12 program. That said, older learners are likely to advance in proficiency more quickly due to their native language literacy and cognitive development (Lightbown & Spada, 2013). Ultimately, proficiency in speaking, listening, reading, and writing is best developed through long sequences of uninterrupted language study and regular and meaningful use of the target language by the teacher and students (ACTFL, 2012a).

With proficiency development not tied to grade or age, it is critical to understand what can realistically be expected in speaking, listening, reading, and writing at the various proficiency ranges. Table 2 summarizes key indicators of the first three ranges of the *ACTFL Proficiency Guidelines 2012*.

Notice that the Novice-range user of a language is one whose communication and comprehension is most successful in highly familiar and predictable contexts, using words and memorized expressions. Someone with Intermediate-range proficiency effectively uses sentences and strings of sentences to communicate and comprehend for practical purposes and in familiar contexts.

The Advanced-range language user communicates and comprehends in paragraphs in more and less familiar contexts in past, present, and future time frames. The more advanced proficiency ranges—Superior and Distinguished—are not discussed here, as these are not considered to be achievable within the context of a K–12 program (NSFLEP, 2015). Descriptions of the Novice, Intermediate, and Advanced proficiency levels clearly describe target language literacy development. Yet, it is important to keep in mind that the differences in how world and home language education programs are implemented prohibit any close comparison between students' target and native language literacy development.

Table 2. *Partial Summary of American Council on the Teaching of Foreign Languages (ACTFL, 2012a) Proficiency Guidelines by Range and Skill Area*

Proficiency	Speaking	Writing	Reading	Listening
Novice Range	Can produce short messages on highly predictable, everyday topics using isolated and memorized words and phrases.	Can produce lists, notes, and simple messages; can complete simple forms and reproduce symbols based on practiced materials and formulaic information using words, phrases, and symbols.	Can comprehend short texts with imagery or other clues to meaning on highly predictable and very familiar topics or content using key words, cognates, and formulaic expressions.	Can recognize or comprehend simple questions, statements, and high-frequency commands related to highly predictable, everyday topics using key words, aural cognates, and formulaic expressions.
Intermediate Range	Can produce personal meaning on familiar topics and daily life using sentences, strings of sentences, and simple questions, mostly in present tense.	Can produce simple messages, letters, notes, and requests related to practical and social needs and topics of personal interest using basic vocabulary and structures and loosely-connected sentences.	Can comprehend simple texts with predictable patterns of presentation and contextual clues related to highly familiar, everyday contexts and with high frequency vocabulary.	Can comprehend simple or routine messages and information related to highly familiar, everyday contexts that are delivered in sentence-length speech, with high frequency vocabulary.
Advanced Range	Can participate in conversation to communicate information on a range of familiar topics and deal with unexpected complications of a social situation using description and past, present, and future time frames and paragraph-level speech.	Can produce routine correspondence, narratives, descriptions, and summaries using description and elaboration in the past, present, and future time frames at the paragraph-level.	Can comprehend the main idea and supporting details of authentic narrative and descriptive texts and the main arguments of uncomplicated persuasive texts on topics of real-world general interest, using contextual clues and knowledge of vocabulary and grammar.	Can comprehend main ideas and most supporting details in clear, organized, and connected speech and reports on topics of general interest using real-world knowledge, contextual clues, and knowledge of vocabulary and grammar.

Introducing Learning Standards

The second organizing principle introduced to world language education at the approach of the 21st century was a focus on content learning standards. In 1996, the National Standards in Foreign Language Education Project (NSFLEP) published *Standards for Foreign Language Learning: Preparing for the 21st Century*, which is a document that identified five major goal areas—Communication, Cultures, Connections, Comparisons, and Communities (5Cs)—and 11 learning standards. These learning standards served to further inform the profession regarding what students in world language classrooms should know and be able to do. The standards made a clear statement that world language education should promote students' ability to communicate in multiple interconnected ways for real-world purposes, which are key ideas found in the definition of literacy presented at the beginning of this chapter. That assertion was accompanied by the idea that vocabulary and grammar are tools for supporting communication, which is a stance that seemed to critique the practices of some existing methods and approaches.

The following is an overview of the five goal areas and 11 learning standards laid out in the initial standards document. As will be discussed later in this chapter, these learning standards were

revised and renamed the *World-Readiness Standards for Learning Languages* in 2015. The overview below reflects only content that is still accurate and reflective of both the original and revised standards.

Goal area 1: Communication

The first goal area, *Communication*, is composed of three standards: Interpersonal (1.1), Interpretive (1.2), and Presentational (1.3) Communication. More typically referred to as *modes*, each encompasses a purpose for communication, directionality of that communication (i.e., one- or two-way), and language skills that can be used to carry it out. The *Interpersonal mode*—the exchange and negotiation of spontaneous, two-way messages—occurs in speaking (e.g., phone conversation, class discussion) as well as in writing (e.g., text message, note to friend). The *Interpretive mode*—comprehension and interpretation of oral, print, and visual messages—takes place through listening (e.g., song, lecture), reading (e.g., short story, graffiti written on a wall), and viewing (e.g., music video, photographs). The *Presentational mode*—the one-way, rehearsed message to a particular audience—is carried out in speaking (e.g., lines in a play, newscast) and writing (e.g., poem, letter to the editor). When the three Communication standards or modes are used in integrated or interconnected ways, they collectively embody all elements of this chapter’s literacy definition. The final portion of this chapter provides specific examples to illustrate the concept of integrated modes of Communication. It is through the three Communication modes and their embedded language skills that the remaining eight standards are intended to be carried out. How speaking, listening, reading, and writing are used across all 11 learning standards is illustrated in Table 3.

Table 3. *Standards for Foreign Language Learning (National Standards in Foreign Language Education Project, 1996) by Skill Area*

Standards	Reading	Writing	Speaking	Listening
Goal Area 1: Communication				
1.1 Interpersonal Communication		•	•	
1.2 Interpretive Communication	•			•
1.3 Presentational Communication		•	•	
Goal Area 2: Cultures				
2.1 Practices of Culture	•	•	•	•
2.2 Products of Culture	•	•	•	•
Goal Area 3: Connections				
3.1 Making Connections	•	•	•	•
3.2 Acquiring Information	•	•	•	•
Goal Area 4: Comparisons				
4.1 Language Comparisons	•	•	•	•
4.2 Cultural Comparisons	•	•	•	•
Goal Area 5: Communities				
5.1 School and Community	•	•	•	•
5.2 Lifelong Learning	•	•	•	•

Goal area 2: Cultures

The second goal area, *Cultures*, includes two standards that together promote students’ understanding of the cultural perspectives that underlie target culture practices (2.1) and target culture products

(2.2). *Perspectives* refer to the “meanings, attitudes, values, and ideas” of a given culture, *practices* are the culture’s “patterns of social interaction,” and *products* are the culture’s tangible (e.g., literature) and intangible (e.g., laws) outcomes (NSFLEP, 2006, p. 47). It is through the modes of Communication that students can directly access and engage with the “3Ps” of culture, and it is students’ understandings of culture that allow them to deeply carry out the modes of Communication. In other words, the integrated study of language and culture gives students “the powerful key to successful communication: *knowing how, when, and why, to say what to whom*” (NSFLEP, 2006, p. 11).

Goal area 3: Connections

The *Connections* goal area, with two standards, aims to reinforce and advance students’ content knowledge through interdisciplinary learning (3.1) and access to information and viewpoints only available through the target language (3.2). Interdisciplinary learning integrates what students learn in other content areas (e.g., science, mathematics) with the language and culture content of the world language classroom. The acquisition of information and distinct viewpoints is facilitated when students engage with the people (e.g., email exchange, face-to-face conversation) and products (e.g., newspaper article, photographs) of a target culture, engagement that is carried out through the modes of Communication.

Goal area 4: Comparisons

The two standards of the *Comparisons* goal area encourage students’ contrastive analysis of language (4.1) and culture (4.2). By learning and reflecting on the words, sounds, structure, and other characteristics of the target language, students can become more aware of their native language and language systems in general. By comparing the practices, products, and perspectives of the target culture with their home culture, students can become more aware of their own culture and the nature of cultures in general. Language comparisons are inextricably linked to literacy practices as it is only through literacy practices that students carry them out. Cross-cultural comparisons are facilitated when students engage in the comparison using one or more of the modes of Communication.

Goal area 5: Communities

The final goal area, *Communities*, also includes two standards. The first calls for students to use the target language within and outside of the school setting (5.1), and the second for its use for personal benefit (5.2). Essentially, the *Communities* standards motivate students to employ all Communication modes widely in their daily lives.

The *Standards for Foreign Language Learning* did not push aside the first organizing principle of proficiency. Rather, the standards and concepts of proficiency work hand in hand. The skill areas of speaking, writing, reading, and listening found in the *ACTFL Proficiency Guidelines 2012* are embedded within the three modes of Communication and serve as a means to measure students’ communicative performances. With Communication as the vehicle for achieving all the standards, students are continuously developing not only their proficiency but also their literacy.

A New Standards Era and World Languages

The beginning of the 21st century brought changes to the educational landscape that seemed to overlook the role of world language education. This section of the chapter discusses what these changes were and how world language education leadership was proactive in making the work of the field visible, particularly in relationship to its focus on literacy development.

Common Core and World Languages

A new era in the educational standards movement began when the National Governors Association and the Council of Chief State School Officers published the *Common Core State Standards for Eng-*

lish Language Arts (ELA) and Literacy in History/Social Studies, Science, and Technical Subjects (CCSS; National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010). Assertions about what students need to know and be able to do to be successful in college shaped the initial *College- and Career-Readiness Anchor Standards* and the subsequent K-12 standards. Acknowledgement that students' college- and career-readiness relied on their ability to enact literacies in a digital age meant that research and media literacy skills were blended into the four major skill-based strands of the new standards. Despite organizing around strands of Reading, Writing, Speaking and Listening, and Language, the *Common Core ELA Standards* are described as "an integrated model of literacy" in which all processes of communication are connected (NGA & CCSSO, 2010, p. 4). To a large extent, the skill integration and connected processes of communication mirror the recently-forged relationship in world language education between the *ACTFL Proficiency Guidelines* and the *Standards for Foreign Language Learning*. Yet, the *Common Core ELA Standards* document did not explicitly name or identify the place of world languages among the disciplines to which it said the standards applied. In response, ACTFL crafted the *Alignment of the National Standards for Learning Languages with Common Core State Standards* (ACTFL, 2012b), to make visible the strong alignment of the *Standards for Foreign Language Learning* to the *Common Core ELA Standards*, to perhaps claim its place relative to literacy development, as well as to assert an important difference. ACTFL illustrated the alignment of the four skills and three modes of Communication and noted similarities in expectations regarding a balance of text types and purposes for writing. The difference, ACTFL pointed out, was that world language education must draw on proficiency benchmarks rather than the grade-level benchmarks of the *Common Core ELA Standards*, thus situating the field with the *College- and Career-Readiness Anchor Standards* rather than the K-12 standards.

Further Alignments of World Language Education and Literacy

More than a decade into the 21st century, world language education continues to follow the trajectory of aligning itself closer and more explicitly to the field of literacy education. Two major initiatives provide evidence of this. First, a multi-year study of the first decade of the *Standards for Foreign Languages* (Phillips & Abbott, 2011) resulted in the decision to revise the standards to more closely reflect the current educational landscape. The resulting *World-Readiness Standards for Learning Languages* were published in 2015. These new standards retained the structure of the original five Goal areas and 11 standards, while providing greater specificity in regard to literacy development and real-world applications, as represented in the *Common Core ELA Standards*, *College- and Career-Readiness Anchor Standards*, and *21st Century Skills* (NSFLEP, 2013; see Table 4).

Table 4. Past and Present World Language Learning Standards Comparison

Standards for Foreign Language Learning (1996) ^a	World-Readiness Standards for Learning Languages (2015) ^b
1. COMMUNICATION: Communicate in languages other than English	1. COMMUNICATION: Communicate effectively in more than one language in order to function in a variety of situations and for multiple purposes
1.1 Interpersonal Communication. Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.	Interpersonal Communication. Learners interact and negotiate meaning in spoken, signed, or written conversations to share information, reactions, feelings, and opinions.
1.2 Interpretive Communication. Students understand and interpret written and spoken language on a variety of topics.	Interpretive Communication. Learners understand, interpret, and analyze what is heard, read, or viewed on a variety of topics.

Standards for Foreign Language Learning (1996) ^a	World-Readiness Standards for Learning Languages (2015) ^b
1.3 Presentational Communication. Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.	Presentational Communication. Learners present information, concepts, and ideas to inform, explain, persuade, and narrate on a variety of topics using appropriate media and adapting to various audiences of listeners, readers, or viewers.
2. CULTURES: Gain knowledge and understanding of other cultures	2. CULTURES: Interact with cultural competence and understanding
2.1 Practices of Culture. Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.	Relating Cultural Practices to Perspectives. Learners use the language to investigate, explain, and reflect on the relationship between the practices and perspectives of the cultures studied.
2.2 Products of Culture. Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.	Relating Cultural Products to Perspectives. Learners use the language to investigate, explain, and reflect on the relationship between the products and perspectives of the cultures studied.
3. CONNECTIONS: Connect with other disciplines and acquire information	3. CONNECTIONS: Connect with other disciplines and acquire information and diverse perspectives in order to use the language to function in academic and career-related situations
3.1 Making Connections. Students reinforce and further their knowledge of other disciplines through the foreign language.	Making Connections. Learners build, reinforce, and expand their knowledge of other disciplines while using the language to develop critical thinking and to solve problems creatively.
3.2 Acquiring Information. Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures.	Acquiring Information and Diverse Perspectives. Learners access and evaluate information and diverse perspectives that are available through the language and its cultures.
4. COMPARISONS: Develop insight into the nature of language and culture	4. COMPARISONS: Develop insights into the nature of language and culture in order to interact with cultural competence
4.1 Language Comparisons. Students demonstrate understanding of the nature of language through comparisons of the language studied and their own.	Language Comparisons. Learners use the language to investigate, explain, and reflect on the nature of language through comparisons of the language studied and their own.
4.2 Cultural Comparisons. Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.	Cultural Comparisons. Learners use the language to investigate, explain, and reflect on the concept of culture through comparisons of the cultures studied and their own.
5. COMMUNITIES: Participate in multilingual communities at home and around the world	5. COMMUNITIES: Communicate and interact with cultural competence in order to participate in multilingual communities at home and around the world
5.1 School and Community. Students use the language both within and beyond the school setting.	School and Global Communities. Learners use the language both within and beyond the classroom to interact and collaborate in their community and the globalized world.
5.2 Lifelong Learning. Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.	Lifelong Learning. Learners set goals and reflect on their progress in using languages for enjoyment, enrichment, and advancement.

Note. ^a Standards for Foreign Language Learning (1996). Adapted from *Standards for Foreign Language Learning in the 21st Century* (p. 9), by National Standards in Foreign Language Education Project, 1996, Lawrence, KS: Allen Press. Copyright 1996 by Author. Adapted with permission.

^b World-readiness standards for learning languages (2015). Adapted from *World-Readiness Standards for Learning Languages* (p. 9), by National Standards in Foreign Language Education Project, 2015, Alexandria, VA: Author. Copyright 2015 by Author. Adapted with permission.

Second, a nationwide movement to promote *biliteracy*, or college- and career-ready proficiency in two languages, has resulted in several state governments' adoption of the *Seal of Biliteracy*, which is a designation attached to qualifying students' high school diplomas and transcripts. After seeing this California-based initiative take hold across the U.S., ACTFL partnered with the National Asso-

ciation of Bilingual Education (NABE), the National Council of State Supervisors for Languages (NCSSFL), and TESOL International Association to develop and publish the *Guidelines for Implementing the Seal of Biliteracy* (2015). In these guidelines, ACTFL et al. propose that consistency of meaning across contexts is key and can only be achieved through proficiency-based implementation. The *Seal of Biliteracy Guidelines*, therefore, identify the level of proficiency that students should be required to demonstrate across all modes of Communication and suggest acceptable forms of evidence. While world language education seemed to have had little direction or goal orientation regarding literacy development in its early years, the last few decades have brought it closer and more deeply committed to all students' literacy development.

Standards-Based Planning in the World Language Classroom

Planning for literacy learning in the world language classroom requires understanding the Communication standards individually and in relationship to one another. It means knowing how to select or design tasks appropriate to the mode of Communication and students' proficiency levels. It means planning for students' deep and meaningful learning and performances. This final portion of the chapter breaks down and explains these concepts with illustrations and examples at two levels of proficiency.

Planning for Integrated Modes of Communication

As defined earlier in this chapter, literacy in the world language classroom involves the capacity to communicate in interconnected or integrated ways. What must be integrated are the three modes of Communication, which as discussed earlier, include Interpersonal, Interpretive, and Presentational Communication. To understand this idea, it is helpful to think of these three modes as interconnected cogs on a wheel. When one is engaged, it sets the others into motion. Any cog can turn first, engaging those beside it. To plan for students' integrated Communication, the teacher starts by selecting the mode most appropriate for the instructional goal, text, or task and then plans for the mode that allows students to elaborate on what they have learned. *Texts* are works that are interpreted through listening, reading, or viewing. *Tasks* refer to communicative endeavors that students are expected to carry out. For example, students might listen to a target language song (text) about the environment and write down words they think contribute to the song's message (Interpretive mode task). Students subsequently have a conversation in small groups to try to persuade others of the song's message by sharing the evidence they collected (Interpersonal mode task). Once small groups have selected what they believe to be the song's message, they create a written and illustrated poster to present the message to others (Presentational mode task). Despite this well-ordered example that moves students across all three modes of Communication, it is not always necessary to plan for each of the three modes' successive use before returning to a given mode. For example, the teacher in this case might want to build students' background knowledge about environmental issues in the country from which the song came by showing students a video prior to having them listen to the song. In other words, this might be a case where engaging students with interpreting two texts first might better build their capacity to carry out the related Interpersonal and Presentational tasks.

Planning with Proficiency in Mind

As seen in the summary of the *ACTFL Proficiency Descriptors 2012* in Table 2, what students can be expected to do with the target language is directly related to their proficiency level. Therefore, both text and task selection should take proficiency into account. A document that can simplify teachers' proficiency-based planning across modes of Communication is the *NCSSFL-ACTFL Can-Do Statements* (NCSSFL-ACTFL, 2013). Concise first-person statements or benchmarks of performance are presented for all proficiency sub-levels for Interpersonal Communication, Presentational

Speaking, Presentational Writing, Interpretive Listening, and Interpretive Reading (pp. 4-5). Using the *NCSSFL-ACTFL Can-Do Statements*, it can be seen that the text and tasks described in the previous section would be particularly appropriate for Novice High level learners, which would be students in perhaps the third year of a typical 7-12 language program. The Novice High benchmark for Interpretive Listening states, “I can often understand words, phrases, and simple sentences related to everyday life. I can recognize pieces of information and sometimes understand the main topic of what is being said” (p. 4). This benchmark is clearly reflected in the Interpretive task of listening to a song to extract key words with the goal of identifying its message. The Novice High benchmark for Interpersonal Speaking states, “I can communicate and exchange information about familiar topics using phrases and simple sentences, sometimes supported by memorized language (p. 4). This is visible when students use information collected from the song to try to persuade others of its message. Finally, the Novice High benchmark for Presentational Writing states, “I can write short messages...on familiar topics related to everyday life” (p. 4). These short messages are made evident in the writing and illustration on posters that students create.

Aligning with the Common Core

As previously discussed in this chapter, integrated literacy is not only the intention and domain of the *World-Readiness Standards for Learning Languages* but also of the *Common Core ELA Standards*. As each mode of Communication in the *World-Readiness Standards for Learning Languages* embodies more than one language skill, and the *Common Core ELA Standards* are organized by language skill, alignment requires a two-step task analysis that begins with identifying the language skill and then the purpose for which that language skill is to be used. Using the examples from above, when students listen to a song for the purpose of interpreting its message through evidence (Interpretive Communication), they also address *Common Core* Speaking and Listening (SL) Anchor Standard 3: “Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric” (NGA & CCSSO, 2010, p. 48). When students have a conversation in small groups to try to persuade others using evidence (Interpersonal Communication), they additionally address elements of *Common Core* Speaking and Listening (SL) Anchor Standard 1: “Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively” (p. 48). When students create a written and illustrated poster that presents a message (Presentational Communication), they simultaneously address elements of *Common Core* Writing (W) Anchor Standard 2: “Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content” (p. 41). As previously explained, proficiency levels rather than grade levels must serve as benchmarks in the field of world language education. Additional examples of integrated modes of communication and literacy aligned to both sets of standards and at two proficiency levels can be found in Table 5.

Table 5. *Integrated Modes of Communication and Common Core State Standards (NGA & CCSSO, 2010)*
Alignment Through Texts and Tasks

Novice Range: Geography and Weather	Intermediate Range: Short Story as Core Text
<p>Mode: Interpretive (Reading)</p> <p>Text: On-line TL weather reports for select cities in various TL-speaking countries</p> <p>Task: Read weather reports and draw related weather icons onto map of countries. CCSS ELA Standards: R1, R4, R7</p>	<p>Mode: Presentational (Writing)</p> <p>Text: Short story title</p> <p>Task: Based on the title of a short story not yet read, name and describe an imagined main character and sequence of events. CCSS ELA Standard: W3</p>

Novice Range: Geography and Weather	Intermediate Range: Short Story as Core Text
<p>Mode: Interpersonal (Speaking)</p> <p>Text: Map of TL-speaking countries with weather icons drawn by student</p> <p>Task: Referring to the map icons, partners identify the location of their most preferred weather and explain why they prefer it. CCSS ELA Standards: SL1, SL2</p>	<p>Mode: Interpretive (Listening)</p> <p>Text: Students' story predictions based on the title of a short story not yet read</p> <p>Task: Listen to short story predictions and complete a "ballot" for which is most and least likely to occur, most creative, etc. CCSS ELA Standard: SL2</p>
<p>Mode: Presentational (Writing)</p> <p>Text: Information from on-line TL weather reports and map of TL-speaking countries</p> <p>Task: Create a digital travel poster to persuade others to visit preferred city for its weather using words or expressions and visuals. CCSS ELA Standards: W1, W6</p>	<p>Mode: Interpersonal (Speaking)</p> <p>Text: Short story about which predictions were made</p> <p>Task: Discuss the accuracy of the "ballot" votes by drawing on evidence found in the short story. CCSS ELA Standard: SL3</p>
<p>Note. TL = target language</p>	

Planning for Deep Learning

The integrated communicative tasks described above clearly come together to build and reinforce students' conceptual understandings and their knowledge, capacity, and confidence with multiple elements of target language literacy. Yet, a single pass through the integrated modes of Communication is not sufficient to build depth, and depth matters when the goals are to build students' proficiency and literacy in the target language. Depth is best accomplished through multiple well-planned passes that allow students to not only explore and expand conceptual understandings and language but also to revisit, re-examine, and reinforce their learning.

Interdisciplinary themes and core texts are two planning approaches that facilitate deep learning. An *interdisciplinary theme* refers to a unifying concept or topic around which instruction is designed. It can incorporate multiple and varied texts, multiple entry points, and multiple perspectives. A *core text* is a multi-part text in which each part interconnects with other parts and subsequent parts build on concepts and language from earlier ones (Clementi & Terrill, 2013). One potential model for interdisciplinary thematic planning was proposed by Clementi and Terrill (2013), who suggested that thematic instruction should begin with "the personal level (*Knowing Myself*), to where the learner lives locally, regionally, nationally (*Exploring Communities*), and globally (*Engaging with the World*)" (p. 3). Using this model in a unit on the environment at the Novice High level of proficiency, *Knowing Myself* might involve students surveying classmates about what they currently do to help the environment in their home and school (Interpersonal), view an on-line video about what young people can do at home and school to help their environment (Interpretive), and write a list of actions to take to better maintain their home and school environment (Presentational). *Exploring Communities* might involve students reading a U.S. government multilingual webpage with advice on protecting the environment (Interpretive), discuss which of their current and planned environmental behaviors align with the advice (Interpersonal), and create an infographic of environmentally-friendly practices (Presentational). *Engaging the World* might have students view photographs that reflect environmental issues and solutions in parts of the world where the target language is spoken (Interpretive), interview an environmentalist in the U.S. and in a target language-speaking country via Skype about environmental issues and solutions (Inter-

personal), and create a chart to compare environmental issues and/or solutions of the U.S. and the target language-speaking country (Presentational). Note that the preceding examples were written to illustrate the model; therefore, not all tasks or steps within them were made fully visible or were fully described.

Planning for Quality Tasks

It is through the communication tasks students carry out that texts are made meaningful to them. Using an example from above, photographs of environmental issues and solutions, visual texts, might catch students' attention and fleeting interest; however, tasks such as writing questions about observations from the photographs, interviewing environmentalists, and creating a cross-cultural comparison chart promote students' deep meaning-making, especially as it relates to the goals of instruction.

Designing a quality task means planning for all students' active engagement in a given mode of Communication. Active engagement within the context of Communication means that every student is producing or interpreting the target language throughout the duration of the task. Tasks used early in instruction should incorporate sufficient support to allow all students to meaningfully communicate before having fully acquired the necessary vocabulary or grammar. For example, when having the students carry out the task described above of surveying classmates about what they do to help the environment at home and school, the teacher might provide them a survey form that includes the interview question and possible responses in the target language. Other forms of support include sentence starters or fill-ins, interview guides, charts, visual clues, and more. The use of planned supports can bolster students' early ability and confidence to communicate with new content and/or new language. Over time, and with practice, students should be able to perform similar tasks with less and less external support.

Selecting Task Design

Task design should match the expectations of the given mode of Communication. As Interpersonal Communication requires students to interact and negotiate meaning spontaneously with others orally, in writing, or digitally, interpersonal tasks must be designed to facilitate such interactions. Interviews, surveys, conversations, discussions, peer problem-solving, spontaneous role plays, emails, and texts, are all tasks that, by design, promote Interpersonal Communication.

Interpretive Communication requires students to comprehend, interpret, and analyze what they hear, read, or view in the target language. Comprehension, the first expectation of this standard, refers to students' literal understandings based on perspectives of their home culture. Tasks well designed to elicit comprehension include, but are not limited to, answering questions; completing sentences, charts, or graphic organizers; showing response cards; manipulating objects or visuals; illustrating; and physically performing actions. Interpretation and analysis, the additional expectations of the Interpretive Communication standard, require students to engage in higher-order thinking and demonstrate understandings of target culture perspectives. Tasks that facilitate these elements include discussion, debate, role play, hypothesizing, predicting, linguistic and cross-cultural analyses, most or all of which may have limited application at the Novice level.

Presentational communication requires students to present information and ideas for various purposes to audiences who may be listening, reading, and/or viewing what they have prepared, edited, and rehearsed in oral, written, and/or digital formats. Presentational task possibilities are endless and are best conceived of in relationship to real-life performances or products related to the interdisciplinary theme, core text, or other organizing principle. For example, returning to the theme of environment, students might write a list of rules, deliver a speech, or record a song or public service announcement about what teens can do to protect the environment.

Assessing Communication

Whether the tasks address Interpersonal, Interpretive, or Presentational Communication, they are all performances. Therefore, the same criteria that informed task design are those that should be used by teachers to assess students' performances relative to the standards and relative to their given level of proficiency. The first-person nature of the aforementioned *NCSSFL-ACTFL Can-Do Statements* global benchmarks (e.g., "I can write short messages...on familiar topics related to everyday life" [p. 4]), also promotes students' self-assessment, which can lead to increased awareness of their developing proficiency and setting realistic goals. While tasks across the three modes of Communication can be assessed individually, the optimal assessment is actually the one that is complex and looks at students' performances across all modes of communication. It is the one that takes into account real-life demands that students be able to carry out communication and literacy using all modes and all skills in interconnected ways (Adair-Hauck, Glisan, & Troyan, 2013).

Summary

The definition of literacy put forth at the beginning of this chapter states that students of world languages should be able to communicate in the interconnected ways and for the varied purposes that real world contexts demand through listening, reading, viewing, writing, and speaking. Since the inception of modern world language education in the 19th century, there have been ebbs and flows in regard to how well and to what degree methods and approaches to teaching world languages have addressed this definition. The late 20th century introductions of the two organizing principles of proficiency and learning standards formalized expectations for the field and have since provided teachers guidance to design the instruction envisioned in the definition.

Swift and significant changes in the recent educational landscape have largely ignored world language education, which has caused organizations and individuals in the field to make even more explicit the role of world languages in literacy education. With the American Council on the Teaching of Foreign Languages (ACTFL) taking the lead, multiple guiding and elucidating documents have been published since 2010 to illustrate and explain to those within and outside of the field the many ways in which world language education is a key partner in students' literacy development. It is with the guidance of these and previous documents that world language educators themselves have additional support and clarity for selecting texts and designing tasks and assessments that prepare students to enact literacy in the integrated ways that the real world demands.

Questions and Activities

1. Which methods, approaches, or elements described in this chapter reflect your language learning experiences? What impact did these experiences have on your target language learning and literacy development? What concepts, practices, and documents described in this chapter could have further promoted your language and literacy development?
2. The *World-Readiness Standards for Learning Languages* were written to add clarity regarding what language learners should be able to demonstrate. Analyze the Communication standards in the Table 4 comparison chart to note specific ways in which this new clarity addresses literacy. Look at the standards in the other four goal areas (Culture, Connections, Comparisons, and Communities). In what ways is literacy integrated into these standards as well?
3. Visit the website <http://sealofbilitery.org/> and engage in further reading on the *Seal*

- of Biliteracy*. Find out if your state has adopted it, and if so, where the implementation stands. What do you see as the advantages to this initiative? Who benefits and why?
4. Using the Integrated Modes of Communication with Texts and Tasks model (Table 5), design a sequence of texts and tasks for the Novice and Intermediate ranges of proficiency for the target language you may be preparing to teach or that you studied. Consult relevant guiding documents such as the *NCSSFL-ACTFL Can-Do Statements* and align your sequences to the *Common Core ELA Standards*.

References

- American Council on the Teaching of Foreign Languages. (1986). *ACTFL provisional proficiency guidelines*. Hastings-on-Hudson, NY: Author. Retrieved from <http://www.actfl.org/sites/default/files/pdfs/public/ACTFLProficiencyGuidelines1986.pdf>
- American Council on the Teaching of Foreign Languages. (2012a). *ACTFL proficiency guidelines 2012*. Alexandria, VA: Author. Retrieved from http://www.actfl.org/sites/default/files/pdfs/public/ACTFLProficiencyGuidelines2012_FINAL.pdf
- American Council on the Teaching of Foreign Languages. (2012b). *Alignment of the national standards for learning languages with the Common Core State Standards*. Alexandria, VA: Author. Retrieved from <http://www.actfl.org/sites/default/files/pdfs/CrosswalkFinalAligningCCSSLanguageStandards.pdf>
- American Council on the Teaching of Foreign Languages, National Association of Bilingual Education, National Council of State Supervisors for Languages, & TESOL International Association. (2015). *Guidelines for implementing the seal of biliteracy*. Alexandria, VA: Authors. Retrieved from http://www.actfl.org/sites/default/files/pdfs/SealofBiliteracyGuidelines_0.pdf
- Celce-Murcia, M. (2001). Language teaching approaches: An overview. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (3rd ed., pp. 3–11). Boston, MA: Heinle & Heinle.
- Clementi, D., & Terrill, L. (2013). *The keys to planning for learning: Effective curriculum, unit, and lesson design*. Alexandria, VA: American Council on the Teaching of Foreign Languages.
- Hauck, B., Glisan, E. W., & Troyan, F. J. (2013). *Implementing integrated performance assessment*. Alexandria, VA: American Council on the Teaching of Foreign Languages.
- Horwitz, E. K. (2008). *Becoming a language teacher: A practical guide to second language learning and teaching*. New York, NY: Allyn and Bacon.
- Lightbown, P. M., & Spada, N. (2013). *How languages are learned* (4th ed.). Oxford, UK: Oxford University Press.
- National Council of State Supervisors for Languages, & American Council on the Teaching of Foreign Languages. (2013). *NCSSFL-ACTFL can-do statements: Progress indicators for language learners*. Alexandria, VA: Authors. Retrieved from http://www.actfl.org/sites/default/files/pdfs/Can-Do_Statements_FINAL3.pdf
- National Governors Association Center for Best Practices, & Council of Chief State School Officers. (2010). *Common core state standards for English language arts & literacy in history social studies, science, and technical subjects*. Washington, DC: Author. Retrieved from http://www.corestandards.org/wp-content/uploads/ELA_Standards.pdf
- National Standards in Foreign Language Education Project. (1996). *Standards for foreign language learning in the 21st century* (2nd ed.). Lawrence, KS: Allen Press.
- National Standards in Foreign Language Education Project. (2006). *Standards for foreign language learning in the 21st century* (3rd ed.). Lawrence, KS: Allen Press.

- National Standards in Foreign Language Education Project. (2015). *World-readiness standards for learning languages*. Alexandria, VA: Author.
- Omaggio Hadley, A. (2001). *Teaching language in context: Proficiency-oriented instruction* (3rd ed.). Boston, MA: Heinle.
- Phillips, J. K., & Abbott, M. (2011, October). *A decade of foreign language standards: Impact, influence, and future directions*. Retrieved from <http://www.actfl.org/sites/default/files/pdfs/public/national-standards-2011.pdf>
- Shrum, J. L., & Glisan, E. W. (2010). *Teacher's handbook: Contextualized language instruction* (4th ed.). Boston, MA: Heinle.

14. Teacher Discourses and Identities: Understanding Your Teaching Self

Elizabeth Y. Stevens

Abstract

This chapter discusses theories and methods for thinking about how language works in the world, with an emphasis on teachers' discourses and identities. It includes definitions of discourse, Discourse, and identity drawing on the work of James Paul Gee, as well as a review of two studies on preservice and inservice teachers' discourses and identities. It also introduces critical discourse analysis as a theory and method for analyzing discourse. Further, it provides ways for preservice teachers to engage in critical identity work through the study of discourses.

Learning Objectives

After reading this chapter, readers will be able to

1. define discourse and Discourse;
2. identify how Discourses relate to identities;
3. consider the Discourses they enact, or act as;
4. discuss some research findings on teachers' discourses and identities;
5. define critical discourse analysis as a theory and research method;
6. consider ways to study their own discourses and identities;
7. engage in critical identity work.

Introduction

In the most literal sense, James Paul Gee, a Mary Lou Fulton Presidential Professor of Literacy Studies, defined *discourse*, with a little d, as stretches of oral or written language-in-use. He defined *Discourse*, with a big D, as distinctive ways of using discourse, that is, speaking/listening and/or reading/writing coupled with ways of acting, interacting, valuing, feeling, dressing, thinking, and believing (Gee, 2011). Gee's definition of Discourse is a theory that explains how language works in society. His theory of Discourse is grounded in social and cultural views of literacy. Social and cultural views of literacy suggest that context, history, culture, discourse, power, and beliefs influence teachers, literacy, and instruction.

You may be wondering why such seemingly complex terms such as *discourse* and *Discourse* are important for teachers to understand. Research suggests that teachers' discourses, or language, can contribute to uneven expectations for students in schools, such as when teachers use language that favors students more like themselves. It also suggests that when teachers examine their own discourses, they may better understand who they are as teachers and how their Discourses (ways of speaking, listening, reading, and/or writing integrated with ways of acting, interacting, valuing, feeling, dressing, thinking, and believing), might lead to inequity in the classroom. As teachers

think about and work against such Discourses, they can provide fair learning opportunities for all students in schools (Comber & Kamler, 2004; Hall, Johnson, Juzwik, Wortham, & Mosley, 2010). Gee (2012) also asserted that as individuals become knowledgeable about theories of Discourses, individuals have an “obligation” to reflect on Discourses (p. 216). Thus, as you prepare to assume roles in schools, it is important to understand how your Discourses influence interactions with students and colleagues, as well as influence your instructional decisions. In this chapter, you will be provided with ways to consider the Discourses that you bring to your teaching self.

Understanding Discourses

All individuals use “little d” discourses, or language-in-use, to be recognized, or identified, by others as certain kinds of people (e.g., teacher, bird watcher, doctor). Gee (2000) defined identity as, “The ‘kind of person’ one is recognized as ‘being’ at a given time and place” (p. 99). People enact, or act as, multiple identities and Discourses, ways of speaking, listening, reading, and/or writing coupled with ways of acting, interacting, valuing, feeling, dressing, thinking, and believing, that depend on the context that they are in at any given time and place. For example, one can be a teacher and bird watcher, but the language that person uses to be identified as a teacher may be different than the language the person uses as a bird watcher.

Individuals also enact identities through language by comparing or contrasting others’ identities to the identities they wish to enact. For example, as you think about yourself as a teacher, you may compare or contrast yourself to “good” and “bad” teachers you had during your academic career. When you think of good teachers who taught you in the past, you might even think of them as influential to your identity as a teacher, and you may hope to emulate their positive attributes. Teachers sometimes even compare and contrast themselves to students. Gee (2011) said, “For example the ‘Special Ed’ teacher needs ‘Special Ed’ (‘SPED’) students and talks about and acts in regard to students in such a way as to create and sustain this identity as well” (p. 109). So all individuals need other people to enact their identities because they measure their identities against others (e.g., good and bad teachers and students).

In addition, there can be conflicts among individuals’ multiple Discourses and identities because they do not always represent consistent and compatible values. Gee (2012) referred to competing Discourses as “tension” or “conflict” (p. 175). Tensions or conflicts among competing Discourses can be the source of struggle and resistance when individuals bring other Discourses to their day-to-day interactions. For instance, he suggested that the values of many school-based Discourses treat certain students as “other,” which means students are sometimes treated differently because of their race, class, gender, or sexuality (Gee, 2012, p. 4).

An example of tensions or conflicts of competing Discourses was presented in a study by Hyland (2009) that I will first introduce and then describe in more detail in the next section of this chapter. Hyland’s (2009) study illuminated the challenges one White, female, fourth grade teacher faced while attempting to build relationships across culture and race with her African American students. The teacher’s Discourses suggested she wanted students to feel important, capable, valued, and empowered, and she structured learning tasks in her classroom accordingly. The teacher’s Discourses, however, conflicted with the dominant Discourses of others in the school. Other teachers were reported to attribute their “dysfunctional” classrooms to negative assumptions about students and their families (Hyland, 2009, p. 105). Such competing Discourses made it hard for the teacher to reconcile dominant messages about her students’ African American culture.

Typically, individuals do not consider their Discourses. It is almost as if Discourses are unconscious. For this reason, people are not always critical about what counts as “normal” ways to think, feel, and behave as teachers, bird watchers, or doctors, for example. In this regard, Discourses can be dangerous because they relate to who has power in society and have ways of valuing what is

“normal” or “good” in ways that “stack the deck” in favor of certain “kinds of people” (Gee, 2012, p. 165). In spite of creating a classroom environment where students were valued and empowered, Hyland (2009) found that the Discourses of the teacher discussed above hindered her relationships with her students’ families because she positioned students’ lives as abnormal compared to her own.

It is important for individuals, particularly if you are or will be a teacher, to become aware of your many Discourses because they will influence your interactions with others, students and colleagues alike. Going forward, consider the Discourses you enact so others recognize you as a certain kind of person. You may consider yourself a child, a parent, a student, a kind of professional, and so forth. How do you speak, listen, read, write, act, interact, value, feel, dress, think, and believe according to these identities? For example, this author’s Discourses differ depending on whether I am with my children at story time at the local library or at the university asserting myself as a professor. Depending on the context, I enact different Discourses so others recognize me as a certain kind of person (e.g., mother, professor) or to indicate my belonging to various social groups.

Discourses

Some of the research on teachers’ discourses shows that teachers draw on what is called “deficit” Discourses. Deficit Discourses are ways of using language that suggest some individuals or certain groups in society are failing or deficient, and these are the Discourses that are important to think about and work against in order to provide more equitable opportunities for all students in schools. A good example of deficit thinking in action is presented by Hyland (2009), who followed the early career of a fourth grade, White, female teacher introduced earlier. Hyland gathered data over a two-year period, from sources such as observations, interviews, notes from informal conversations (sometimes in the form of emails), and entries from the teacher’s journal. Hyland studied these data sources for evidence of culturally relevant pedagogy. Culturally relevant pedagogy is a practice of teaching that embraces students’ backgrounds and makes connections between students’ home and school lives while being aware of and critiquing the oppressive relationships between students’ backgrounds and dominant culture (Beauboeuf-Lafontant, 1999). For more discussion about culturally-based pedagogies, please see Chapter 12.

Recall that in Hyland (2009), the White fourth grade teacher’s language suggested she valued her students’ culture, but she struggled to recognize differences between her life and her students’ lives. The teacher talked about students’ families and lives as if they were deficient. For instance, the teacher suggested that students’ language use was deficient and that parents did not read to their children at home. Viewing students and their families in this way made it difficult for the teacher to make connections to the community. Hyland concluded that it is important for teachers to be able to recognize and critique deficit Discourses that are present in schools and society in order to be culturally relevant teachers.

Teacher Identity

Studies on preservice teachers’ identities show that teachers experience conflicts between the Discourses they bring to their work and their teacher identities. Preservice denotes the time before teachers have finished their education and have started teaching. Such studies show that teachers bring multiple Discourses to their work with students and colleagues, and that exploring their Discourses can provide them with a greater understanding about who they are as teachers in ways that may keep them from giving up during their career. In one study, Alsup (2006) examined the narratives, or stories, of six White, female, preservice English teachers for five semesters. Alsup’s data sources included interviews during which the preservice teachers told stories about experiences, memories, and tensions they felt as they were becoming teachers. Her other data sources included the preservice teachers’ lesson plans, philosophy statements, and literacy autobiographies.

Alsup studied the teachers' discourses, focusing on their ideas, issues, experiences, and feelings. She observed tension in their narratives between their "student" and "teacher" selves, between their personal beliefs and what they were learning about their future work, and between ways of thinking about teaching at the university versus practical applications. Alsup noticed teachers were often expected to conform to a narrowly defined identity corresponding to what they observed and understood as characteristics of good teachers. As one example, good teachers know how to engage and manage students. Managing students, as a primary goal, can be associated with deficit Discourses that suggest students are not capable of thinking critically, participating in a classroom community, or managing themselves. Alsup found, however, that those who allowed themselves to experience tensions between the personal and professional were more likely to pursue jobs as teachers and remain teachers. These teachers remained true to their personal ideals, and they enacted politically active teacher identities. Alsup concluded that in order for preservice teachers to be successful in transitioning into their careers, they require guidance and support from their teacher educators to explore their identities and discourses.

Critical Discourse Analysis

As you read in the previous sections, Gee's views of discourse and Discourse are theories about how language works in the world. All people use discourses, or language-in-use, to enact their identities and indicate their belonging to social groups. What individuals say and write, or the discourses they use, shape and are shaped by their ways of seeing themselves and how they want to be recognized by others as certain kinds of people. Gee (2012) provided an example of an encounter of contrasting identities that shows what individuals say and do is how they will be recognized as certain kinds of people. Gee asked us to imagine him, a professor, driving his motorcycle to a "biker bar." Picture the professor as he enters the bar and sits next to a burly, leather-jacket wearing man with many tattoos. He says to the man, "May I please have a match for my cigarette?" Even though Gee's (2012) language is grammatically correct, he described his words as "wrong" (p. 2). He suggested it might have been more appropriate to say something like, "Gotta match?" Gee (2012) asked us to imagine he used the right words, but picture him carefully wiping off the bar stool with a napkin as to not get his neatly ironed designer jeans dirty. This shows that individuals enact identities not only through language, what they say and how they say it, but also through what they do. In Gee's case, his words and ways of being marked his belonging (or not) to certain social groups. Ideas about how language works in the world are important to understand as this chapter moves to another theory and method for analyzing discourses called critical discourse analysis.

Critical discourse analysis is, again, a theory about language that helps explain how language works in society, and its roots date back to a French scholar named Michel Foucault. Foucault proposed that language is not simply words, rather it represents knowledge and power (Rogers, Malancharuvil-Berkes, Mosley, Hui, & Joseph, 2005). His ideas about language were important because they were among the first to help people think about how discourses contribute to social inequality, and more specifically, about who does and does not have power in society. Scholars such as Chouliaraki and Fairclough (1999), Gee (1999), and Rogers (2004) continue to develop theories about language and power. While scholars' theories may vary a bit, those that draw on critical discourse analysis in their work, and are referred to as critical discourse analysts, generally share some ideas about how language works. Critical discourse analysts assume that history, power, and context influence the language that individuals use. This means that words are deeper than the surface of the text. Language is rooted in history, laden with power, and influenced by the context in which it is used. Critical discourse analysts also agree that some people are more privileged than others (Rogers et al., 2005). You may notice critical discourse analysis and big "D" Discourse, discussed earlier, are both theories that contribute insights about how language works in the world.

Critical discourse analysis is not only a theory but also a method used in research to analyze people's language. Data consist of everyday oral and/or written language and is sometimes referred to as text. As discussed in Chapter 1, texts include a wide range of ways people communicate that are not limited to only printed documents. Researchers use many different approaches to critical discourse analysis in such disciplines as social policy, social work, linguistics, and education to study how language works. There is not a right or wrong way to do discourse analysis. With a number of approaches of critical discourse analysis at scholars' disposal, some debate on whether there should be a more standardized approach to critical discourse analysis. A standardized approach may offer greater consistency across research; however, the cost is that it may take away researchers' abilities to make decisions about what approach to critical discourse analysis may best address their research questions.

Approaches to critical discourse analysis vary in their use of text and content analysis. Some approaches focus more on text analysis. These approaches require a close focus on the study of word selection and use of grammar. Text analysis may include noticing word choice, tone, turn-taking, and body language. A researcher may pay close attention to certain words that a speaker or writer chooses, to the ways a speaker emphasizes words in his or her talk, or to how a speaker situates his or her body (e.g., arms crossed, eye rolling, etc.). Other approaches may focus less on the details of the text and more on the content, which involves the study of the larger ideas, issues, and themes in individuals' discourses brought about by their backgrounds, beliefs, values, and ideas thought to be true. A researcher may pay close attention to the content of a speaker or writer's discourse that may reveal his or her ideas about race, class, and gender. For example, when teachers at urban schools use language that reveals the belief that parents do not care about their children's education, this content would be noted by the researcher. An important part of content analysis, then, is finding the links between individuals' discourses and the larger societal context in order to make connections to the history and power that language represents.

Critical discourse analysis attempts to move beyond a description and interpretation of language to an explanation of *how* language works in the world (Rogers et al., 2005). Scholars purposely choose to use this research method to study identity because it allows them to examine how individuals make sense of themselves and their world. It ties together individuals' language to what they meant, intended, or sought to accomplish (Gee, 2011). Together, text and content analysis can guide the study of the ways individuals enact socially recognizable Discourses and identities.

If you find yourself intrigued by the theories and methods discussed in this chapter, you may want to read *How to do Discourse Analysis: A Toolkit*. In this text, Gee (2011) provides 27 tools for analyzing discourse. Gee's methods help teachers and researchers to build layers of meaning about context by asking questions that relate to the text and content or meanings "hidden" in discourses. Using a sampling of Gee's tools for discourse analysis in Table 1, review the snippet of transcribed data in Table 2.

What can you discern from the individual's discourse, or language-in-use? What do these tools help you to figure out about how this person identifies and the Discourses this person draws on in doing so? Also note, it will be helpful to review the transcription coding system in Table 3. This system of recording is helpful because it attempts to capture all of the details in text as indications of how people see themselves and their ideas.

Table 1. *Sample of Gee's (2011) Discourse Analysis Tools*

Tool	Question	In Other Words
Deixis	“Ask how deictics are being used to tie what is said to context and to make assumptions about what listeners already know or can figure out” (p. 10).	How does the speaker use deictics or pointing words, words whose reference must be determined from context (e.g., I/me, he/him, she/her, we/us, they/them, here/there, this/that, now/then, yesterday/today)? What can you infer about the context based on what was said? What does the speaker assume you know?
Subject	“Ask why speakers have chosen the subject/ topics they have and what they are saying about the subject. Ask if and how they could have made another choice of subject and why they did not” (p. 19)?	Why did the speaker choose to talk about these subjects (e.g., person, place, thing, or idea)? Could the speaker have talked about these subjects in any other way? Why might the speaker have organized his/her talk this way?
Fill In	“What knowledge, assumptions, and inferences do listeners have to bring to bear in order for this communication to be clear and understandable and received in the way the speaker intended it” (p. 12)?	What information do you need to clarify what the speaker said? What do you have to infer from what the speaker said?
Identity	“Ask what socially recognizable identity or identities the speaker is trying to enact or to get others to recognize. . . . Ask, too, how the speaker is positioning others, what identities the speaker is ‘inviting’ them to take up” (p. 110).	What identities (e.g., teacher, birdwatcher) does the speaker enact? How does the speaker talk about other people’s identities? How does the speaker position others’ identities compared to his or her own identities?
Big “D” Discourse	“Ask how the person is using language, as well as ways of acting, interacting, believing, valuing, dressing, and using various objects, tools, and technologies in certain sorts of environments to enact a specific socially recognizable identity and engage in one or more socially recognizable activities” (p. 181).	What ways of using language, acting, interacting, believing, valuing, dressing, and using various objects does the speaker enact to be identified as a certain kind of person? What actions, interactions, values, beliefs, and objects, tools, and technologies are associated with that identity? (There are multiple identities, too.)

Table 2. *Transcribed Data Snippet*

Transcribed Data
Elizabeth: Um (.) ((Smacks lips)) um while you are talking about your family, how do you identify culturally and ethnically?
Jessica: ((Smacks lips)) Um (.) White, Caucasian, is that what you mean like ((laughingly))? Yeah. I mean my=my mom’s mom ((taps on table)) is from the Ukraine. And my mom’s dad ((taps on table twice)) is from (.) like he’s=his family came from England but they came over a while ago. So he’s=my grandpa’s like third or fourth generation. But my mom=and my mom’s grandma was first generation here from the Ukraine. So (.) that was always a little bit of our culture. Like at Christmas time my mom, would always, as we were walking in the door like tell us how to say Merry Christmas in the=in Ukrainian. I couldn’t remember it for the life of me, now still. Um and my dad’s family is Irish and English=or Irish and Italian, (.) but I mean for the most part it was just White ((taps on table)) middle class, you know, values and home life, and the typical you know.

Table 3. *Transcription Coding System (Adapted from Tannen, 1984/2005)*

Transcription	Code
<i>Italics</i>	Emphasis
(...)	Pause for seconds
BOLD CAPITAL LETTERS	Loud volume; yelling

Transcription	Code
((double parentheses))	Gestures (e.g., nods, smiles, laughs, points, claps, etc.)
(parentheses)	Different pronunciation
^	Rising pitch
v	Falling pitch
SMALL CAPS	Rapid rate of speech
[brackets]	Overlapped speech
—	Interruption
“quotations”	Quoting
= =	Latching
:::	Lengthened sound
//	Phonetic spelling (IPA)

Exploring Your Discourses and Identities

One way to explore your discourses and identities is through critical identity work. Critical identity work uses critical discourse analysis to examine relationships among teachers, students, and power and privilege in schools. As outlined by Vetter, Schieble, and Meacham (2012), the first step is to video record five- to 10-minute segments of your teaching (e.g., mini-lessons, small group work with students, or your facilitation of a discussion). You may repeat this process a few times throughout a semester. Next, transcribe the recording, which means listen to and watch the recording and make a written (typed) copy of what you hear and see. With your transcription in hand, use the set of guiding questions in Table 4 to engage in discourse analysis. To conclude, write a reflection that describes how your classroom interactions did or did not relate to the kind of teacher you hoped to be. This kind of critical identity work may guide you to align your teacher identity and your classroom practice because it will bring attention to how your identity influences your practice.

Table 4. *Critical Identity Work Guiding Questions (Adapted from Vetter et al., 2012)*

Guiding Questions
<ul style="list-style-type: none"> • Who does most of the talking? • What kinds of questions are posed? What kinds of answers are facilitated? • How do you talk to students? What is your tone? Do you use directives? Questions? Praises? Criticisms? • How do you think your words positioned your students as readers and writers? How do you think your students positioned you as a teacher? How did you position yourself as a teacher? • How might these positionings be shaped by how you were taught? By the kind of school you attended? By your race, class, gender, and/or sexuality? • What are the students doing? • Are students engaged in the lesson? • How do students communicate with each other? • How do students position each other as readers and writers? • What are the strengths? What will you do different? • How do these practices match up with the kind of teacher you want to become? How do they contradict?

Another exercise to try is to create an identity discourse map (Alsup, 2006). With your peers, list aspects of popular culture and historical events that have been important in your lifetime. Think about the messages you received from society during these events that relate to race, class, gender, and sexuality. For instance, the shooting of Michael Brown by Darren Wilson in Ferguson, Mis-

souri was a significant event from which many have taken away messages about race (“Tracking the Events,” 2014). Then, independently, write about messages you may have taken from personal, family, or home discourses related to religion, ethnicity, race, geography, family, class, and sexuality. Conclude by writing about how all of these things may affect your views on teaching and learning. Your instructor may decide whether you will share all or parts of your conclusions with your peers.

The identity discourse map could be a useful resource as you study your discourses, identities, and literacy autobiography through a critical lens. Literacy teacher educators often use a literacy autobiography assignment to prompt you to examine your own history and learning experiences. If you have not done so already, write a literacy autobiography using the set of guiding questions in Table 5.

Upon writing your literacy autobiography, revisit it and read it more critically. Reflect on how your literacy autobiography is shaped by political, cultural, racial, economical, and historical times. Perhaps you noted some of these on your identity map above. Further, respond to the questions, “In what ways do our literate autobiographies shape the types of literacy environments we construct for the students we work with? What connections can you make between your narrative and the narratives of the children you work with?” (Rogers & Wetzel, 2014, p. 53).

Alsup (2006) also suggested an activity entitled “What is your pedagogy?” First, brainstorm definitions to the words “personal” and “pedagogy.” Then answer the following questions: What are their definitions? How do they intersect? How do they conflict? Write a one- to two-page statement about personal pedagogy and how the personal and professional may be integrated. The activity may help you disrupt the divisions of public and private or personal and professional often associated with teaching. As noted in a previous section of this chapter, Alsup (2006) found that the teachers who grappled with personal and professional aspects of their identities were more likely to pursue and maintain jobs as teachers. This activity should also guide you to be able to explain your background and what aspects of your Discourses you bring to your work as a teacher.

Table 5. *Literacy Autobiography Guiding Questions*

Guiding Questions
<ul style="list-style-type: none"> • Reflect on your early years. • What was your home culture like? • How did literacy play a role in your past? • How could a young person use literacy to express his or her identity? How did you? • How did teachers promote or inhibit your literacy practices? • How do you define literacy? • Recall a negative literacy experience, if you can. • How does your background and or culture influence your learning? • How do your past literacy experiences affect your present? • Did you ever feel held back in your literacy experiences? • What are your beliefs about the power of literacy? • How did you overcome setbacks in literacy? • How did political leadership or historical movements influence education when you were growing up?

Summary

It is important to understand theories about language as a teacher because language can contribute to uneven expectations for students in schools. The social and cultural views of language and literacy presented in this chapter help explain that context, history, culture, discourse, power, and beliefs influence teachers’ interactions and inform decisions. Researchers suggested that sometimes teachers use deficit Discourses that position others that do not share their Discourses as deficient or lacking. Researchers also recognized that teachers bring multiple Discourses to their work that sometimes

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cause conflicts or tensions. Examining your discourses may lead you to provide more equitable opportunities in schools because such examination can bring attention to deficit Discourses that you may have otherwise never considered. In addition, understanding who you are and what Discourses you enact may help you align your identities and practices in ways that may serve you well throughout your career. Critical discourse analysis is a theory and method that can help you to study the text and content of your discourses to learn more about how your language is made up of knowledge and power. A number of other activities such as critical identity work, identity discourse mapping, and applying a critical lens to your work may also prove to be useful.

Questions and Activities

1. Define *discourse* and *Discourse*. Explain how these definitions differ and why these differences are important to teaching.
2. What does the theory of Discourse suggest about how language works?
3. Explain how Discourses have to do with belonging or fitting in. How do they relate to identities?
4. Consider the Discourses you enact so others recognize you as a certain kind of person. Discuss ways in which the way your Discourses might reflect your belonging to certain groups and not to others.
5. What do research studies suggest about teachers' Discourses and identities? Explain how findings from these studies provide insight into issues related to language and power.
6. Define critical discourse analysis and discuss why teachers should be concerned about their own discourses.
7. How can you go about studying your own discourses? How can this kind of study benefit you and your students?

Web Resources

- James Paul Gee: <http://www.jamespaulgee.com/>
- *An Introduction to Critical Discourse Analysis in Education*: <http://cw.routledge.com/textbooks/9780415874298/>

References

- Alsop, J. (2006). *Teacher identity discourses: Negotiating personal and professional spaces*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Beauboeuf-Lafontant, T. (1999). A movement against and beyond boundaries: Politically relevant teaching among African American teachers. *Teachers College Record*, 100(4), 702–723. doi:10.1111/0161-4681.00013
- Chouliaraki, L., & Fairclough, N. (1999). *Discourse in late modernity: Rethinking critical discourse analysis*. Edinburgh, Scotland: Edinburgh University Press.
- Comber, B., & Kamler, B. (2004). Getting out of deficit: Pedagogies of reconnection. *Teaching Education*, 15(3), 293–310. doi:10.1080/1047621042000257225
- Gee, J. P. (1999/2005). *An introduction to discourse analysis theory and method*. New York, NY: Routledge.
- Gee, J. P. (2000). Identity as an analytical lens for research in education. *Review of Research in Education*, 25(1), 99–125. doi:10.2307/1167322
- Gee, J. P. (2011). *How to do discourse analysis: A toolkit*. New York, NY: Routledge.

- Gee, J. P. (2012). *Social linguistics and literacies: Ideology in discourses* (4th ed.). New York, NY: Routledge.
- Hall, L. A., Johnson, A. S., Juzwik, M. M., Wortham, S. E. F., & Mosley, M. (2010). Teacher identity in the context of literacy teaching: Three explorations of classroom positioning and interaction in secondary schools. *Teaching and Teacher Education, 26*, 234–243. doi:10.1016/j.tate.2009.04.009
- Hyland, N. E. (2009). One White teacher's struggle for culturally relevant pedagogy: The problem of the community. *The New Educator, 5*, 95–112. doi:10.1080/1547688X.2009.10399567
- Rogers, R. (Ed.). (2004). *An introduction to critical discourse analysis in education*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Rogers, R., Malancharuvil-Berkes, E., Mosley, M., Hui, D., & Joseph, G. O. G. (2005). Critical discourse analysis in education: A review of the literature. *Review of Educational Research, 75*(3), 365–416. doi:10.3102/00346543075003365
- Rogers, R., & Wetzel, M. M. (2014). *Designing critical literacy education through critical discourse analysis: Pedagogical and research tools for teacher researchers*. New York, NY: Routledge.
- Tannen, D. (1984/2005). *Conversational style: Analyzing talk among friends*. New York, NY: Oxford University Press.
- Tracking the events in the wake of Michael Brown's shooting. (2014, November 24). *The New York Times*. Retrieved from <http://www.nytimes.com/interactive/2014/11/09/us/10ferguson-michael-brown-shooting-grand-jury-darren-wilson.html>
- Vetter, A., Schieble, M., & Meacham, M. (2012). *A critical framework for engaging preservice teachers' identity work through video analysis*. Paper presented at the American Educational Research Association Annual Meeting, Vancouver, British Columbia, Canada.

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