



Knowledge and Practice Standards for Teachers of Reading

With Commentary for Dyslexia Specialists

**International Dyslexia Association,
Professional Standards and Practices Committee
2010**

Louisa Moats, Committee Chair
Suzanne Carreker
Rosalie Davis
Phyllis Meisel
Louise Spear-Swerling
Barbara Wilson

INTRODUCTION

Purpose of These Standards

The International Dyslexia Association (IDA) offers these standards to guide the preparation, certification, and professional development of those who teach reading and related literacy skills in classroom, remedial, and clinical settings. The term *teacher* is used throughout this document to refer to any person whose responsibilities include reading instruction. The standards aim to specify what any individual responsible for teaching reading should know and be able to do so that reading difficulties, including dyslexia, may be prevented, alleviated, or remediated. In addition, the standards seek to differentiate classroom teachers from therapists or specialists who are qualified to work with the most challenging students.

Although programs that certify or support teachers, clinicians, or specialists differ in their preparation methodologies, teaching approaches, and organizational purposes, they should ascribe to a common set of professional standards for the benefit of the students they serve. Compliance with these standards should assure the public that individuals who teach in public and private schools, as well as those who teach in clinics, are prepared to implement scientifically based and clinically proven practices.

Background: Why These Standards Are Necessary

Reading difficulties are the most common cause of academic failure and underachievement. The National Assessment of Educational Progress consistently finds that about 36% of all fourth graders read at a level described as “below basic.” Between 15 and 20% of young students demonstrate significant weaknesses with language processes, including but not limited to phonological processing, that are the root cause of dyslexia and related learning difficulties. Of those who are referred to special education services in public schools, approximately 85% are referred because of their problems with language, reading, and/or writing. Informed and effective classroom instruction, especially in the early grades, can prevent and relieve the severity of many of these problems. For those students with dyslexia who need specialized instruction outside of the regular class, competent intervention from a specialist can lessen the impact of the disorder and help the student overcome the most debilitating symptoms.

Teaching reading effectively, especially to students experiencing difficulty, requires considerable knowledge and skill. Regrettably, current licensing and professional development practices endorsed by many states are insufficient for the preparation and support of teachers and specialists. Researchers are finding that those with reading specialist and special education licenses often know no more about research-based, effective practices than those with a general education teaching license. The majority of practitioners at all levels have not been prepared in sufficient depth to recognize early signs of risk, to prevent reading problems, or to teach students with dyslexia and related learning disabilities successfully. Inquiries into teacher preparation in reading have revealed a pervasive absence of substantive content and academic rigor in many courses that lead to certification of teachers and specialists. Analyses of teacher licensing tests show that typically, very few are aligned with current research on effective instruction for students at risk. To address these gaps, IDA has adopted these standards for knowledge, practice, and ethical conduct.

Research-based Assumptions about Dyslexia and Other Reading Difficulties

These standards are broadly constructed to address the knowledge and skill base for teaching reading in preventive, intervention, and remedial settings. Underlying the standards are assumptions about the nature, prevalence, manifestations, and treatments for dyslexia that are supported by research and by accepted diagnostic guidelines. These assumptions characterize dyslexia in relation to other reading problems and learning difficulties, as follows:

- Dyslexia is a language-based disorder of learning to read and write originating from a core or basic problem with phonological processing intrinsic to the individual. Its primary symptoms are inaccurate and/or slow printed word recognition and poor spelling – problems that in turn affect reading fluency and comprehension and written expression. Other types of reading disabilities include specific difficulties with reading comprehension and/or speed of processing (reading fluency). These problems may exist in relative isolation or may overlap extensively in individuals with reading difficulties.
- Dyslexia often exists in individuals with aptitudes, talents, and abilities that enable them to be successful in many domains.
- Dyslexia often coexists with other developmental difficulties and disabilities, including problems with attention, memory, and executive function.
- Dyslexia exists on a continuum. Many students with milder forms of dyslexia are never officially diagnosed and are not eligible for special education services. They deserve appropriate instruction in the regular classroom and through other intervention programs.
- Appropriate recognition and treatment of dyslexia is the responsibility of all educators and support personnel in a school system, not just the reading or special education teacher.
- Although early intervention is the most effective approach, individuals with dyslexia and other reading difficulties can be helped at any age.

How to Use These Standards

The standards outline the 1) content knowledge necessary to teach reading and writing to students with dyslexia or related disorders or who are at risk for reading difficulty; 2) practices of effective instruction; and 3) ethical conduct expected of professional educators and clinicians. Regular classroom teachers should also have the foundational knowledge of language, literacy development, and individual differences because they share responsibility for preventing and ameliorating reading problems.

The standards may be used for several purposes, including but not limited to:

- course design within teacher certification programs;
- practicum requirements within certification programs;
- criteria for membership in IDA's coalition of organizations that provide training and supervision of teachers, tutors, and specialists (note that additional requirements for membership are to be determined);
- criteria for the preparation of those professionals receiving referrals through IDA offices; and
- a content framework for the development of licensing or certification examinations.

How to Read the Standards

The Standards include two major sections. Section I addresses foundation concepts, knowledge of language structure, knowledge of dyslexia and other learning disorders, administration and interpretation of assessments, the principles of structured language teaching, and ethical standards for the profession. Section II addresses skills to be demonstrated in supervised practice. In Section I, Standards A, B, C, and E are presented in two columns. The column on the left refers to content knowledge that can be learned and tested independent of observed teaching competency. The column on the right delineates the practical skills of teaching that depend on or that are driven by content knowledge. The exception to this format is Standard D. It includes a third column on the right that specifies in greater detail what the teacher or specialist should be able to do.

Many of the standards are followed by the designation of (Level 1) or (Level 2). These designations indicate whether the standard should be met by novice teachers in training (Level 1) or by specialists with more experience and greater expertise (Level 2). In Section II, the recommended standards for preparation of teachers and specialists are distinguished by these two levels.

References

- Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia, 51*, 97–120.
- Cunningham, A. E., Perry, K. E., Stanovich, K. E., & Stanovich, P. J. (2004). Disciplinary knowledge of K-3 teachers and their knowledge calibration in the domain of early literacy. *Annals of Dyslexia, 54*, 139–167.
- Joshi, R. M., Binks, E., Hougen, M., Ocker-Dean, E., Graham, L., & Smith, D. (2009). Teachers' knowledge of basic linguistic skills: Where does it come from? In S. Rosenfield & V. Berninger (Eds.), *Handbook on implementing evidence based academic interventions* (pp. 851–877). New York: Oxford University Press.
- McCutchen, D., Harry, D. R., Cunningham, A. E., Cox, S., Sidman, S., & Covill, A. E. (2002). Reading teachers' knowledge of children's literature and English phonology. *Annals of Dyslexia, 52*, 207–228.
- Moats, L. C. (1994). The missing foundation in teacher education: Knowledge of the structure of spoken and written language. *Annals of Dyslexia, 44*, 81–102.
- Moats, L. C., & Foorman, B. R. (2003). Measuring teachers' content knowledge of language and reading. *Annals of Dyslexia, 53*, 23–45.
- Piasta, S. B., Connor, C. M., Fishman, B. J., & Morrison, F. J. (2009). Teachers' knowledge of literacy concepts, classroom practices, and student reading growth. *Scientific Studies of Reading, 13*(3), 224–248.
- Smartt, S. M., & Reschly, D. J. (2007). *Barriers to the preparation of highly qualified teachers in reading*. Washington, DC: National Comprehensive Center for Teacher Quality.
- Spear-Swerling, L. (2008). Response to intervention and teacher preparation. In E. Grigorenko (Ed.), *Educating individuals with disabilities: IDEA 2004 and beyond* (pp. 273–293). New York: Springer.
- Spear-Swerling, L., Brucker, P., & Alfano, M. (2005). Teachers' literacy-related knowledge and self-perceptions in relation to preparation and experience. *Annals of Dyslexia, 55*, 266–293.
- Walsh, K., Glaser, D., & Wilcox, D. D. (2006). *What education schools aren't teaching about reading and what elementary teachers aren't learning*. Washington, DC: National Council on Teacher Quality.

SECTION I: KNOWLEDGE AND PRACTICE STANDARDS

A. Foundation Concepts about Oral and Written Learning

Content Knowledge	Application
<p>1. Understand and explain the language processing requirements of proficient reading and writing</p> <ul style="list-style-type: none"> • Phonological (speech sound) processing • Orthographic (print) processing • Semantic (meaning) processing • Syntactic (sentence level) processing • Discourse (connected text level) processing <p>2. Understand and explain other aspects of cognition and behavior that affect reading and writing</p> <ul style="list-style-type: none"> • Attention • Executive function • Memory • Processing speed • Graphomotor control <p>3. Define and identify environmental, cultural, and social factors that contribute to literacy development (e.g., language spoken at home, language and literacy experiences, cultural values).</p> <p>4. Know and identify phases in the typical developmental progression of</p> <ul style="list-style-type: none"> • Oral language (semantic, syntactic, pragmatic) • Phonological skill • Printed word recognition • Spelling • Reading fluency • Reading comprehension • Written expression <p>5. Understand and explain the known causal relationships among phonological skill, phonic decoding, spelling, accurate and automatic word recognition, text reading fluency, background knowledge, verbal reasoning skill, vocabulary, reading comprehension, and writing.</p>	<p>1. a. Explain the domains of language and their importance to proficient reading and writing (Level 1).</p> <p style="padding-left: 20px;">b. Explain a scientifically valid model of the language processes underlying reading and writing (Level 2).</p> <p>2. a. Recognize that reading difficulties coexist with other cognitive and behavioral problems (Level 1).</p> <p style="padding-left: 20px;">b. Explain a scientifically valid model of other cognitive influences on reading and writing, and explain major research findings regarding the contribution of linguistic and cognitive factors to the prediction of literacy outcomes (Level 2).</p> <p>3. Identify (Level 1) or explain (Level 2) major research findings regarding the contribution of environmental factors to literacy outcomes.</p> <p>4. Match examples of student responses and learning behavior to phases in language and literacy development (Level 1).</p> <p>5. Explain how a weakness in each component skill of oral language, reading, and writing may affect other related skills and processes across time (Level 2).</p>

Content Knowledge	Application
6. Know and explain how the relationships among the major components of literacy development change with reading development (i.e., changes in oral language, including phonological awareness; phonics and word recognition; spelling; reading and writing fluency; vocabulary; reading comprehension skills and strategies; written expression).	6. Identify the most salient instructional needs of students who are at different points of reading and writing development (Level 2).
7. Know reasonable goals and expectations for learners at various stages of reading and writing development.	7. Given case study material, explain why a student is/is not meeting goals and expectations in reading or writing for his or her age/grade (Level 1).

Explanatory Notes

An extensive research base exists on the abilities that are important in learning to read and write, including how these abilities interact with each other, how they are influenced by experience, and how they change across development. Teachers' knowledge of this research base is an essential foundation for the competencies and skills described in subsequent sections of this document.

References

Level 1

- Adams, M. (1990). *Beginning to read: Learning and thinking about print*. Cambridge, MA: MIT Press.
- Bickart, T. (1998). *Summary report of preventing reading difficulties in young children* (National Academy of Sciences). Washington, DC: U.S. Department of Education.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Brookes.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institutes of Health.
- Shaywitz, S. (2003). *Overcoming dyslexia: A new and complete science-based program for reading problems at any level*. New York: Knopf.
- Snow, C., Griffin, P., & Burns, S. (2006). *Knowledge to support the teaching of reading*. San Francisco: Jossey-Bass.
- Spear-Swerling, L., & Sternberg, R. J. (2001). What science offers teachers of reading. *Learning Disabilities Research & Practice, 16*, 51-57.

Level 2

- Adams, M. J. (1998). The three-cueing system. In F. Lehr & J. Osborn (Eds.), *Literacy for all: Issues in teaching and learning* (pp. 73–99). New York: Guilford Press.
- Crawford, E. C., & Torgesen, J. K. (2006, July). *Teaching all children to read: Practices from Reading First schools with strong intervention outcomes*. Presented at the Florida Principal's Leadership Conference, Orlando. Retrieval from <http://www.fcrr.org/science/sciencePresentationscrawford.ht>
- Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability ten years later. *Developmental Psychology, 33*, 934–945.
- Denton, C. A., Fletcher, J. M., Anthony, J. L., & Francis, D. J. (2006). An evaluation of intensive intervention for students with persistent reading difficulties. *Journal of Learning Disabilities, 39*, 447–466.

- Denton, C., Foorman, B., & Mathes, P. (2003). Schools that "Beat the Odds": Implications for reading instruction. *Remedial and Special Education, 24*, 258–261.
- Denton, C., Vaughn, S., & Fletcher, J. (2003). Bringing research-based practice in reading intervention to scale. *Learning Disabilities Research and Practice, 18*, 201–211.
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2007). *Learning disabilities: From identification to intervention*. New York: Guilford Press.
- Genesee, F., Paradis, J., & Crago, M. (2004). *Dual language development & disorders: A handbook on bilingualism & second language learning*. Baltimore: Brookes.
- McCardle, P., & Chhabra, V. (2004). *The voice of evidence in reading research*. Baltimore: Brookes.
- Rayner, K., & Pollatsek, A. (1989) *The Psychology of Reading* Hillsdale, NJ: Erlbaum.
- Spear-Swerling, L. (2004). A road map for understanding reading disability and other reading problems: Origins, intervention, and prevention. In R. Ruddell & N. Unrau (Eds.), *Theoretical models and processes of reading: Vol. 5*. Newark, DE: International Reading Association.
- Stanovich, K. E. (2000). *Progress in understanding reading: Scientific foundations and new frontiers*. New York: Guilford Press.
- Stone, A. C., Silliman, E. R., Ehren, B. J., & Apel, K. (Eds.). (2004). *Handbook of language and literacy: Development and disorders*. New York: Guilford Press.
- Vellutino, F. R., Tunmer, W. E., Jaccard, J. J., & Chen, R. (2007). Components of reading ability: Multivariate evidence for a convergent skills model of reading development. *Scientific Studies of Reading, 11*(1), 3–32.

B. Knowledge of the Structure of Language

Content Knowledge	Application
<p>Phonology (The Speech Sound System)</p> <p>1. Identify, pronounce, classify, and compare the consonant and vowel phonemes of English.</p>	<p>1. a. Identify similar or contrasting features among phonemes (Level 1). b. Reconstruct the consonant and vowel phoneme inventories and identify the feature differences between and among phonemes (Level 2).</p>
<p>Orthography (The Spelling System)</p> <p>2. Understand the broad outline of historical influences on English spelling patterns, especially Anglo-Saxon, Latin (Romance), and Greek.</p> <p>3. Define <i>grapheme</i> as a functional correspondence unit or representation of a phoneme.</p> <p>4. Recognize and explain common orthographic rules and patterns in English.</p> <p>5. Know the difference between “high frequency” and “irregular” words.</p> <p>6. Identify, explain, and categorize six basic syllable types in English spelling.</p>	<p>2. Recognize typical words from the historical layers of English (Anglo-Saxon, Latin/Romance, Greek) (Level 1).</p> <p>3. Accurately map graphemes to phonemes in any English word (Level 1).</p> <p>4. Sort words by orthographic “choice” pattern; analyze words by suffix ending patterns and apply suffix ending rules.</p> <p>5. Identify printed words that are the exception to regular patterns and spelling principles; sort high frequency words into regular and exception words (Level 1).</p> <p>6. Sort, pronounce, and combine regular written syllables and apply the most productive syllable division principles (Level 1).</p>
<p>Morphology</p> <p>7. Identify and categorize common morphemes in English, including Anglo-Saxon compounds, inflectional suffixes, and derivational suffixes; Latin-based prefixes, roots, and derivational suffixes; and Greek-based combining forms.</p>	<p>7. a. Recognize the most common prefixes, roots, suffixes, and combining forms in English content words, and analyze words at both the syllable and morpheme levels (Level 1). b. Recognize advanced morphemes (e.g., chameleon prefixes) (Level 2).</p>
<p>Semantics</p> <p>8. Understand and identify examples of meaningful word relationships or semantic organization.</p>	<p>8. Match or identify examples of word associations, antonyms, synonyms, multiple meanings and uses, semantic overlap, and semantic feature analysis (Level 1).</p>

Syntax

9. Define and distinguish among phrases, dependent clauses, and independent clauses in sentence structure.
10. Identify the parts of speech and the grammatical role of a word in a sentence.

Discourse Organization

11. Explain the major differences between narrative and expository discourse.
12. Identify and construct expository paragraphs of varying logical structures (e.g., classification, reason, sequence).
13. Identify cohesive devices in text and inferential gaps in the surface language of text.

9. Construct and deconstruct simple, complex, and compound sentences (Level 1).
10. a. Identify the basic parts of speech and classify words by their grammatical role in a sentence (Level 1).
b. Identify advanced grammatical concepts (e.g., infinitives, gerunds) (Level 2).
11. Classify text by genre; identify features that are characteristic of each genre, and identify graphic organizers that characterize typical structures (Level 1).
12. Identify main idea sentences, connecting words, and topics that fit each type of expository paragraph organization (Level 2).
13. Analyze text for the purpose of identifying the inferences that students must make to comprehend (Level 2).

Explanatory Notes

Formal knowledge about the structure of language—recognizing, for example, whether words are phonetically regular or irregular; common morphemes in words; and common sentence structures in English—is not an automatic consequence of high levels of adult literacy. However, without this kind of knowledge, teachers may have difficulty interpreting assessments correctly or may provide unintentionally confusing instruction to students. For instance, struggling readers are likely to be confused if they are encouraged to sound out a word that is phonetically irregular (e.g., *some*), or if irregular words, such as *come* and *have*, are used as examples of a syllable type such as “silent e.” Similarly, to teach spelling and writing effectively, teachers need a knowledge base about language structure, including sentence and discourse structure. Research suggests that acquiring an understanding of language structure often requires explicit teaching of this information and more than superficial coverage in teacher preparation and professional development.

References

Level 1

- Grace, K. (2006). *Phonics and spelling through phoneme-grapheme mapping*. Longmont, CO: Sopris West.
- Moats, L.C. (2009). *Language essentials for teachers of reading and spelling (LETRS)*. Longmont, CO: Sopris West.

Level 2

- Brady, S., Gillis, M., Smith, T., Lavalette, M., Liss-Bronstein, L., Lowe, E., et al. (2009). First grade teachers' knowledge of phonological awareness and code concepts: Examining gains from an intensive form of professional development. *Reading and Writing: An Interdisciplinary Journal*, 22, 375–510.
- Henry, M. (2003). *Unlocking literacy*. Baltimore: Brookes.
- McCutchen, D., Abbott, R. D., & Green, L. B. (2002). Beginning literacy: Links among teacher knowledge, teacher practice, and student learning. *Journal of Learning Disabilities*, 35, 69–86.

- Moats, L. C. (2000). *Speech to print: Language essentials for teachers*. Baltimore: Brookes.
- Spear-Swerling, L., & Brucker, P. (2004). Preparing novice teachers to develop basic reading and spelling skills in children. *Annals of Dyslexia, 54*, 332–364.
- Spear-Swerling, L., & Brucker, P. (2006). Teacher-education students' reading abilities and their knowledge about word structure. *Teacher Education and Special Education, 29*, 113–123.

C. Knowledge of Dyslexia and Other Learning Disorders

Content Knowledge	Application
<p>1. Understand the most common intrinsic differences between good and poor readers (i.e., cognitive, neurobiological, and linguistic).</p>	<p>1. a. Recognize scientifically accepted characteristics of individuals with poor word recognition (e.g., overdependence on context to aid word recognition; inaccurate nonword reading) (Level 1). b. Identify student learning behaviors and test profiles typical of students with dyslexia and related learning difficulties. (Level 2).</p>
<p>2. Recognize the tenets of the NICHD/IDA definition of dyslexia.</p>	<p>2. Explain the reasoning or evidence behind the main points in the definition (Level 1).</p>
<p>3. Recognize that dyslexia and other reading difficulties exist on a continuum of severity.</p>	<p>3. Recognize levels of instructional intensity, duration, and scope appropriate for mild, moderate, and severe reading disabilities (Level 1).</p>
<p>4. Identify the distinguishing characteristics of dyslexia and related reading and learning disabilities (including developmental language comprehension disorder, attention deficit hyperactivity disorder, disorders of written expression or dysgraphia, mathematics learning disorder, nonverbal learning disorders, etc.).</p>	<p>4. Match symptoms of the major subgroups of poor readers as established by research, including those with dyslexia, and identify typical case study profiles of those individuals (Level 2).</p>
<p>5. Identify how symptoms of reading difficulty may change over time in response to development and instruction.</p>	<p>5. Identify predictable ways that symptoms might change as students move through the grades (Level 2).</p>
<p>6. Understand federal and state laws that pertain to learning disabilities, especially reading disabilities and dyslexia.</p>	<p>6. a. Explain the most fundamental provisions of federal and state laws pertaining to the rights of students with disabilities, especially students' rights to a free, appropriate public education, an individualized educational plan, services in the least restrictive environment, and due process (Level 1). b. Appropriately implement federal and state laws in identifying and serving students with learning disabilities, reading disabilities, and dyslexia (Level 2).</p>

Explanatory Notes

To identify children with dyslexia and other learning disabilities, teachers must understand and recognize the key symptoms of these disorders, as well as how the disorders differ from each other. In order to plan instruction and detect older students with learning disabilities who may have been overlooked in the early grades, teachers also should understand how students' difficulties may change over time, based on developmental patterns, experience, and instruction, as well as on increases in expectations across grades.

References

Level 1

- Aaron, P. G., Joshi, R. M., Gooden, R., & Bentum, K. (2008). Diagnosis and treatment of reading disabilities based on the component model of reading: An alternative to the discrepancy model of LD. *Journal of Learning Disabilities, 41*, 67–84.
- Hudson, R. R., High, L., & Al Otaiba, S. (2007). Dyslexia and the brain: What does current research tell us? *The Reading Teacher, 60*(6), 506–515.
- Lyon, R., Shaywitz, S., & Shaywitz, B. (2003). A definition of dyslexia. *Annals of Dyslexia, 53*, 1–14.
- Moats, L. C., & Dakin, K. (2007). *Basic facts about dyslexia*. Baltimore: The International Dyslexia Association.

Level 2

- Catts, H. W., Hogan, T. P., & Adlof, S. M. (2005). Developmental changes in reading and reading disabilities. In H. W. Catts & A. Kamhi (Eds.), *The connections between language and reading disabilities* (pp. 25–40). Mahwah, NJ: Erlbaum.
- Leach, J. M., Scarborough, H. S., & Rescorla, L. (2003). Late-emerging reading disabilities. *Journal of Educational Psychology, 95*, 211–224.
- Ehri, L., & Snowling, M. (2004). Developmental variation in word recognition. In A. C. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 443–460). New York: Guilford Press.
- Hulme, C., & Snowling, M. (2009) *Developmental disorders of language, learning, and cognition*. Oxford, England: Wiley-Blackwell.
- Pennington, B. (2009). *Diagnosing learning disorders* (2nd ed.). New York: Guilford Press.
- Olson, R. K. (2004). SSSR, environment, and genes. *Scientific Studies of Reading, 8*(2), 111–124.
- Rayner, K., Foorman, B. F., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2002). How should reading be taught? *Scientific American, 286*(3), 84–91.
- Vadasy, P. F., Sanders, E. A., Peyton, J. A., & Jenkins, J. R. (2002). Timing and intensity of tutoring: A closer look at the conditions for effective early literacy tutoring. *Learning Disabilities Research & Practice, 17*, 227–241.
- Wolf, M. (2007). *Proust and the squid: The story and science of the reading brain*. New York: Harper Collins.
- Wolf, M., & Bowers, P. G. (1999). The double-deficit hypothesis for the developmental dyslexias. *Journal of Educational Psychology, 91*, 415–438.

D. Interpretation and Administration of Assessments for Planning Instruction

Content Knowledge	Application	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
<p>1. Understand the differences among screening, diagnostic, outcome, and progress-monitoring assessments.</p> <p>2. Understand basic principles of test construction, including reliability, validity, and norm-referencing, and know the most well-validated screening tests designed to identify students at risk for reading difficulties.</p> <p>3. Understand the principles of progress-monitoring and the use of graphs to indicate progress.</p> <p>4. Know the range of skills typically assessed by diagnostic surveys of phonological skills, decoding skills, oral reading skills, spelling, and writing.</p> <p>5. Recognize the content and purposes of the most common diagnostic tests used by psychologists and educational evaluators.</p> <p>6. Interpret measures of reading comprehension and written expression in relation to an individual child's component profile.</p>	<p>1. Match each type of assessment and its purpose (Level 1).</p> <p>2. Match examples of technically adequate, well-validated screening, diagnostic, outcome, and progress-monitoring assessments (Level 1).</p> <p>3. Using case study data, accurately interpret progress-monitoring graphs to decide whether or not a student is making adequate progress (Level 1).</p> <p>4. Using case study data, accurately interpret subtest scores from diagnostic surveys to describe a student's patterns of strengths and weaknesses and instructional needs (Level 2).</p> <p>5. Find and interpret appropriate print and electronic resources for evaluating tests (Level 1).</p> <p>6. Using case study data, accurately interpret a student's performance on reading comprehension or written expression measures and make appropriate instructional recommendations.</p>	<p>1. Administer screenings and progress monitoring assessments (Level 1)</p> <p>2. Explain why individual students are or are not at risk in reading based on their performance on screening assessments (Level 1).</p> <p>3. Display progress-monitoring data in graphs that are understandable to students and parents (Level 1).</p> <p>4. Administer educational diagnostic assessments using standardized procedures (Level 2).</p> <p>5. Write reports that clearly and accurately summarize a student's current skills in important component areas of reading and reading comprehension (Level 2).</p> <p>6. Write appropriate, specific recommendations for instruction and educational programming based on assessment data (Level 2).</p>

Explanatory Notes

Teachers' ability to administer and interpret assessments accurately is essential both to early identification of students' learning problems and to planning effective instruction. Appropriate assessments enable teachers to recognize early signs that a child may be at risk for dyslexia or other learning disabilities, and the assessments permit teachers to target instruction to meet individual student's needs. Teachers should understand that there are different types of assessments for different purposes (e.g., brief but frequent assessments to monitor progress versus more lengthy, comprehensive assessments to provide detailed diagnostic information), as well as recognize which type of assessment is called for in a particular situation. Teachers need to know where to find unbiased information about the adequacy of published tests, and to interpret this information correctly, they require an understanding of basic principles of test construction and concepts such as reliability and validity. They also should understand how an individual student's component profile may influence his or her performance on a particular test, especially on broad measures of reading comprehension and written expression. For example, a child with very slow reading is likely to perform better on an untimed measure of reading comprehension than on a stringently timed measure; a child with writing problems may perform especially poorly on a reading comprehension test that requires lengthy written responses to open-ended questions.

References

Level 1

- Hasbrouck, J., & Haager, D. (Eds.). (2007). Monitoring children's progress in academic learning. *Perspectives on Language and Literacy* 33(2).
- Lyon, G. R., Shaywitz, S., & Shaywitz, B. (2003). A definition of dyslexia. *Annals of Dyslexia*, 53, 1–14.
- Torgesen, J. K. (2004). Avoiding the devastating downward spiral: The evidence that early intervention prevents reading failure. *American Educator*, 28(3), 6–9, 12–13, 17–19, 45–47.

Level 2

- Cutting, L. E., & Scarborough, H. S. (2006). Prediction of reading comprehension: Relative contributions of word recognition, language proficiency, and other cognitive skills can depend on how comprehension is measured. *Scientific Studies of Reading*, 10, 277–299.
- Deno, S. L. (2003). Developments in curriculum-based measurement. *Journal of Special Education*, 37, 184–192.
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2007). *Learning disabilities: From identification to intervention*. New York: Guilford Press.
- Fuchs, L. (2004). The past, present, and future of curriculum-based measurement research. *School Psychology Review*, 33, 188–192.
- Good, R. H., Simmons, D. C., & Kame'enui, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high-stakes outcomes. *Scientific Studies of Reading*, 5, 257–288.
- Hogan, T. P., Catts, H. W., & Little, T. D. (2005). The relationship between phonological awareness and reading: Implications for the assessment of phonological awareness. *Language, Speech, and Hearing Services in Schools*, 36, 285–293.
- Jenkins, J. R., Johnson, E., & Hileman, J. (2004). When is reading also writing: Sources of individual differences on the new reading performance assessments. *Scientific Studies of Reading*, 8, 125–152.
- Keenan, J. M., Betjemann, R. S., & Olson, R. K. (2008). Reading comprehension tests vary in the skills they assess: Differential dependence on decoding and oral comprehension. *Scientific Studies of Reading*, 12, 281–300.
- Pennington, B. (2009). *Diagnosing learning disorders* (2nd ed.). New York: Guilford Press.

E-1. Structured Language Teaching: Phonology

Content Knowledge	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
<p>1. Identify the general and specific goals of phonological skill instruction.</p> <p>2. Know the progression of phonological skill development (i.e., rhyme, syllable, onset-rime, phoneme differentiation).</p> <p>3. Identify the differences among various phonological manipulations, including identifying, matching, blending, segmenting, substituting, and deleting sounds.</p> <p>4. Understand the principles of phonological skill instruction: brief, multisensory, conceptual, and auditory-verbal.</p> <p>5. Understand the reciprocal relationships among phonological processing, reading, spelling, and vocabulary.</p> <p>6. Understand the phonological features of a second language, such as Spanish, and how they interfere with English pronunciation and phonics.</p>	<p>1. Explicitly state the goal of any phonological awareness teaching activity (Level 1).</p> <p>2. a. Select and implement activities that match a student's developmental level of phonological skill (Level 1). b. Design and justify the implementation of activities that match a student's developmental level of phonological skill (Level 2).</p> <p>3. Demonstrate instructional activities that identify, match, blend, segment, substitute, and delete sounds (Level 1).</p> <p>4. a. Successfully produce vowel and consonant phonemes (Level 1). b. Teach articulatory features of phonemes and words; use minimally contrasting pairs of sounds and words in instruction; support instruction with manipulative materials and movement (Level 2).</p> <p>5. a. Direct students' attention to speech sounds during reading, spelling, and vocabulary instruction using a mirror, discussion of articulatory features, and so on as scripted or prompted (Level 1). b. Direct students' attention to speech sounds during reading, spelling, and vocabulary instruction without scripting or prompting (Level 2).</p> <p>6. Explicitly contrast first and second language phonological systems, as appropriate, to anticipate which sounds may be most challenging for the second language learner (Level 2).</p>

Explanatory Notes

Phonological awareness, basic print concepts, and knowledge of letter sounds are foundational areas of literacy. Without early, research-based intervention, children who struggle in these areas are likely to continue to have reading difficulties. Furthermore, poor phonological awareness is a core weakness in dyslexia. Ample research exists to inform teaching of phonological awareness, including research on the phonological skills to emphasize in instruction, appropriate sequencing of instruction, and integrating instruction in phonological awareness with instruction in alphabet knowledge. Teachers who understand how to teach these foundational skills effectively can prevent or ameliorate many children's reading problems, including those of students with dyslexia.

References

Level 1

Adams, M., Foorman, B. R., Lundberg, I., & Beeler, T. (Spring/Summer, 1998). The elusive phoneme: Why phonemic awareness is so important and how to help children develop it. *American Educator*, 22(1 & 2), 18–29.

Level 2

Brady, S. & Shankweiler, D. (Eds.). (1991). *Phonological processes in literacy: A tribute to Isabelle Y. Liberman*. Hillsdale, NJ: Lawrence Erlbaum Associates

Gillon, G. (2004). *Phonological awareness: From research to practice*. New York: Guilford Press.

Neuman, S. B., & Dickinson, D. K. (2002). *Handbook of early literacy research*. New York: Guilford Press.

Scarborough, H. S. (1998). Early identification of children at risk for reading disabilities: Phonological awareness and some other promising predictors. In B. K. Shapiro, P. J. Accardo, & A. J. Capute (Eds.), *Specific reading disability: A view of the spectrum* (pp. 75–119). Timonium, MD: York Press.

Scarborough, H. S., & Brady, S. A. (2002). Toward a common terminology for talking about speech and reading: A glossary of the 'phon' words and some related terms. *Journal of Literacy Research*, 34, 299–334.

E-2. Structured Language Teaching: Phonics and Word Recognition

Content Knowledge	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
<ol style="list-style-type: none"> 1. Know or recognize how to order phonics concepts from easier to more difficult. 2. Understand principles of explicit and direct teaching: model, lead, give guided practice, and review. 3. State the rationale for multisensory and multimodal techniques. 4. Know the routines of a complete lesson format, from the introduction of a word recognition concept to fluent application in meaningful reading and writing. 5. Understand research-based adaptations of instruction for students with weaknesses in working memory, attention, executive function, or processing speed. 	<ol style="list-style-type: none"> 1. Plan lessons with a cumulative progression of word recognition skills that build one on another (Level 1). 2. Explicitly and effectively teach (e.g., information taught is correct, students are attentive, teacher checks for understanding, teacher scaffolds students' learning) concepts of word recognition and phonics; apply concepts to reading single words, phrases, and connected text (Level 1). 3. Demonstrate the simultaneous use of two or three learning modalities (to include listening, speaking, movement, touch, reading, and/or writing) to increase engagement and enhance memory (Level 1). 4. Plan and effectively teach all steps in a decoding lesson, including single-word reading and connected text that is read fluently, accurately, and with appropriate intonation and expression (Level 1). 5. Adapt the pace, format, content, strategy, or emphasis of instruction according to students' pattern of response (Level 2).

Explanatory Notes

The development of accurate word decoding skills—that is, the ability to read unfamiliar words by applying phonics knowledge—is an essential foundation for reading comprehension in all students. Decoding skills often are a central weakness for students with learning disabilities in reading, especially those with dyslexia. Teachers' abilities to provide explicit, systematic, appropriately sequenced instruction in phonics is indispensable to meet the needs of this population, as well as to help prevent reading problems in all beginning readers. Teachers should also understand the usefulness of multisensory, multimodal techniques in focusing students' attention on printed words, engaging students, and enhancing memory.

References

Level 1

- Birsh, J. (Ed.). (2005). *Multisensory teaching of basic language skills* (2nd ed.). Baltimore: Brookes.
- Moats, L. C. (1998). Teaching decoding. *American Educator*, 22(1&2), 42–49, 95–96.

Level 2

- Blachman, B. A., Schatschneider, C., Fletcher, J. M., Francis, D. J., Clonan, S., Shaywitz, B., et al. (2004). Effects of intensive reading remediation for second and third graders. *Journal of Educational Psychology*, 96, 444–461.
- Calhoun, M. B. (2005). Effects of a peer-mediated phonological skill and reading comprehension program on reading skill acquisition for middle school students with reading disabilities. *Journal of Learning Disabilities*, 38(5), 424–433.
- Catone, W. V., & Brady, S. (2005). The inadequacy of individual educational program goals for high school students with word-level reading difficulties. *Annals of Dyslexia*, 55(1), 53–78.
- Christensen, C. A., & Bowey, J. A. (2005). The efficacy of orthographic rime, grapheme-phoneme correspondence, and implicit phonics approaches to teaching decoding skills. *Scientific Studies of Reading*, 9, 327–349.
- Ehri, L. C. (2004). Teaching phonemic awareness and phonics: An explanation of the national reading panel meta-analysis. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 153–186). Baltimore: Brookes.
- Joseph, L. M., & Schisler, R. (2009). Should adolescents go back to the basics?: A review of teaching word reading skills to middle and high school students. *Remedial and Special Education* 30 (3), 131– 147.
- Lovett, M. W., Barron, R. W., & Benson, N. J. (2003). Effective remediation of word identification and decoding difficulties in school-age children with reading disabilities. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of Learning Disabilities* (pp. 273–292). New York: Guilford Press.
- Mathes, P. G., Denton, C. A., Fletcher, J. M., Anthony, J. L., Francis, D. J., & Schatschneider, C. (2005). The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly*, 40, 148–182.
- McCandliss, B., Beck, I. L., Sandak, R., & Perfetti, C. (2003). Focusing attention on decoding for children with poor reading skills: Design and preliminary tests of the word building intervention. *Scientific Studies of Reading*, 7, 75–104.
- Torgesen, J. K. (2004). Lessons learned from research on interventions for students who have difficulty learning to read. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 355–381). Baltimore: Brookes.

E-3. Structured Language Teaching: Fluent, Automatic Reading of Text

Content Knowledge	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
<ol style="list-style-type: none"> 1. Understand the role of fluency in word recognition, oral reading, silent reading, comprehension of written discourse, and motivation to read. 2. Understand reading fluency as a stage of normal reading development; as the primary symptom of some reading disorders; and as a consequence of practice and instruction. 3. Define and identify examples of text at a student's frustration, instructional, and independent reading level. 4. Know sources of activities for building fluency in component reading skills. 5. Know which instructional activities and approaches are most likely to improve fluency outcomes. 6. Understand techniques to enhance student motivation to read. 7. Understand appropriate uses of assistive technology for students with serious limitations in reading fluency. 	<ol style="list-style-type: none"> 1. Assess students' fluency rate and determine reasonable expectations for reading fluency at various stages of reading development, using research-based guidelines and appropriate state and local standards and benchmarks (Level 1). 2. Determine which students need a fluency-oriented approach to instruction, using screening, diagnostic, and progress-monitoring assessments (Level 2). 3. Match students with appropriate texts as informed by fluency rate to promote ample independent oral and silent reading (Level 1). 4. Design lesson plans that incorporate fluency-building activities into instruction at sub-word and word levels (Level 1). 5. Design lesson plans with a variety of techniques to build reading fluency, such as repeated readings of passages, alternate oral reading with a partner, reading with a tape, or rereading the same passage up to three times. (Level 1). 6. Identify student interests and needs to motivate independent reading (Level 1). 7. Make appropriate recommendations for use of assistive technology in general education classes for students with different reading profiles (e.g., dyslexia versus language disabilities) (Level 2).

Explanatory Notes

Reading fluency is the ability to read text effortlessly and quickly as well as accurately. Fluency develops among typical readers in the primary grades. Because fluency is a useful predictor of overall reading competence, especially in elementary-aged students, a variety of fluency tasks have been developed for use in screening and progress-monitoring measures. Furthermore, poor reading fluency is a very common symptom of dyslexia and other reading disabilities; problems with reading fluency can linger even when students' accuracy in word decoding has been improved through effective phonics intervention. Although fluency difficulties may sometimes be associated with processing weaknesses, considerable research supports the role of practice, wide exposure to printed words, and focused instruction in the development and remediation of fluency. To address students' fluency needs, teachers must have a range of competencies, including the ability to interpret fluency-based measures appropriately, to place students in appropriate types and levels of texts for reading instruction,

to stimulate students' independent reading, and to provide systematic fluency interventions for students who require them. Assistive technology (e.g., text-to-speech software) is often employed to help students with serious fluency difficulties function in general education settings. Therefore, teachers, and particularly specialists, require knowledge about the appropriate uses of this technology.

References

Level 1

- Carreker, S. (2005). Teaching reading: Accurate decoding and fluency. In J. Birsh (Ed.), *Multisensory teaching of basic language skills* (2nd ed., pp. 213–255). Baltimore: Brookes.
- Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator*, 22(1&2), 8–15.
- Hasbrouck, J. E., & Tindal, G. A. (2006). Oral Reading Fluency norms: A valuable assessment tool for reading teachers. *The Reading Teacher*, 59 (7), 636–644.
- Hudson, R. F., Lane, H. B., & Pullen, P. C. (2005). Reading fluency assessment and instruction: What, why, and how? *The Reading Teacher*, 58, 702–714.
- Kuhn, M. (2004/2005). Helping students become accurate, expressive reading: Fluency instruction for small groups. *The Reading Teacher*, 58(4), 338–345.
- Meyer, M. (Winter, 2002) Repeated reading: An old standard is revisited and renovated. *Perspectives* (The International Dyslexia Association Quarterly Newsletter), 15–18.
- Meyer, M. S., & Felton, R. H. (1999). Repeated reading to enhance fluency: Old approaches and new directions. *Annals of Dyslexia*, 49, 293–306.
- Pikulski, J. J., & Chard, D. J. (2005). Fluency: Bridge between decoding and comprehension. *The Reading Teacher*, 58, 510–519.
- Samuels, S. J. (1997). The method of repeated readings. *The Reading Teacher*, 50, 76–81.

Level 2

- Chard, D., Vaughn, S., & Tyler, B. (2002) A synthesis of research on effective interventions for building fluency with elementary students with learning disabilities. *Journal of Learning Disabilities*, 35, 386–406.
- Connor, C. M., Morrison, F. J., & Katch, L. E. (2004). Beyond the reading wars: Exploring the effect of child-instruction interactions on growth in early reading. *Scientific Studies of Reading*, 8, 305–336.
- Ehri, L. C. (1997). Sight word learning in normal readers and dyslexics. In B. Blachman (Ed.), *Foundations of reading acquisition and dyslexia* (pp. 163–189). Mahwah, NJ: Erlbaum.
- Fuchs, L. S., Fuchs, D., Hamlett, C. L., Walz, L., & Germann, G. (1993). Formative evaluation of academic progress: How much growth should we expect? *School Psychology Review*, 22, 27–48.
- Fuchs, L. S., Fuchs, D., Hosp, M. K., & Jenkins, J. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading*, 5(3), 239–256.
- Good, R. H., Simmons, D. C., & Kame'enui, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high-stakes outcomes. *Scientific Studies of Reading*, 5(3), 257–288.
- Hamilton, C., & Shinn, M. R. (2003). Characteristics of word callers: An investigation of the accuracy of teachers' judgments of reading comprehension and oral reading skills. *School Psychology Review*, 32(2), 228–240.
- Hosp, M. K., Hosp, J. L., & Howell, K.W. (2007). *The ABC's of CBM: A practical guide to curriculum-based measurement*. New York: Guilford Press.
- Katzir, T., Kim, Y., Wolf, M., O'Brien, B., Kennedy, B., Lovett, M., et al. (2006). Reading fluency: The whole is more than the parts. *Annals of Dyslexia*, 56(1), 51–82.
- National Center for Education Statistics, 2002. *Fourth grade students reading aloud: NAEP 2002 special study of oral reading*. Washington, DC: National Assessment of Educational Progress, United States Department of Education, Institute for Education Sciences.
- Samuels, S. J., & Flor, R. F. (1997). The importance of automaticity for developing expertise in reading. *Reading and Writing Quarterly: Overcoming Learning Difficulties*, 13, 107–121.
- Speece, D. L., & Ritchey, K. D. (2005). A longitudinal study of the development of oral reading fluency in young

- children at risk for reading failure. *Journal of Learning Disabilities*, 38(5), 387–399.
- Stahl, S. A., & Heubach, K. (2005). Fluency-oriented reading instruction. *Journal of literacy research*, 37, 25–60.
- Therrien, W. J., Wickstrom, K., & Jones, K. (2006). Effect of a combined repeated reading and question generation intervention on reading achievement. *Learning Disabilities Research & Practice*, 21(2), 89–97.
- Torgesen, J., Alexander, A. W., Wagner, R., Rashotte, C. A., Voeller, K., Conway, T., et al. (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities*, 34, 33–58.

E-4. Structured Language Teaching: Vocabulary

Content Knowledge	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
<ol style="list-style-type: none"> 1. Understand the role of vocabulary development and vocabulary knowledge in comprehension. 2. Understand the role and characteristics of direct and indirect (contextual) methods of vocabulary instruction. 3. Know varied techniques for vocabulary instruction before, during, and after reading. 4. Understand that word knowledge is multifaceted. 5. Understand the sources of wide differences in students' vocabularies. 	<ol style="list-style-type: none"> 1. Teach word meanings directly using contextual examples, structural (morpheme) analysis, antonyms and synonyms, definitions, connotations, multiple meanings, and semantic feature analysis (Levels 1 and 2). 2. Lesson planning reflects: <ol style="list-style-type: none"> A. Selection of material for read-alouds and independent reading that will expand students' vocabulary. B. Identification of words necessary for direct teaching that should be known before the passage is read. C. Repeated encounters with new words and multiple opportunities to use new words orally and in writing. D. Recurring practice and opportunities to use new words in writing and speaking.

Explanatory Notes

Vocabulary, or knowledge of word meanings, plays a key role in reading comprehension. Knowledge of words is multifaceted, ranging from partial recognition of the meaning of a word to deep knowledge and the ability to use the word effectively in speech or writing. Research supports both explicit, systematic teaching of word meanings and indirect methods of instruction such as those involving inferring meanings of words from sentence context or from word parts (e.g., common roots and affixes). Teachers should know how to develop students' vocabulary knowledge through both direct and indirect methods. They also should understand the importance of wide exposure to words, both orally and through reading, in students' vocabulary development. For example, although oral vocabulary knowledge frequently is a strength for students with dyslexia, over time, low volume of reading may tend to reduce these students' exposure to rich vocabulary relative to their typical peers; explicit teaching of word meanings and encouragement of wide independent reading in appropriate texts are two ways to help increase this exposure.

References

Level 1

- Diamond, L., & Gutlohn, L. (2006). *Vocabulary handbook*. Berkeley, CA: Consortium on Reading Excellence.
- Ebbers, S. (2006). *Vocabulary through morphemes*. Longmont, CO: Sopris West.
- Beck, I. L., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.
- Biemiller, A. (1999). Language and reading success. In J. Chall (Ed.), *From reading research to practice, A series for teachers*. Cambridge, MA: Brookline Books.
- Biemiller, A. (2005). Size and sequence in vocabulary development: Implications for choosing words for primary grade instruction. In E. H. Hiebert and M. L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice*. Mahwah, NJ: Erlbaum.

Hirsch, E. D. (2006). *The knowledge deficit: Closing the shocking education gap for American children*. Boston: Houghton Mifflin.

Level 2

Carlisle, J., & Rice, M. S. (2003). *Reading comprehension: Research-based principles and practices*. Baltimore: York Press.

Dickinson, D. K., & Smith, M. W. (1994). Long-term effects of preschool teachers' book readings on low-income children's vocabulary and story comprehension. *Reading Research Quarterly*, 29, 104–123.

Graves, M. (2006). *The Vocabulary book: Learning and instruction*. New York: Teachers College Press, Columbia University.

Hirsch, E. D. (2001). Overcoming the language gap. *American Educator*, 25(2), 4, 6–7.

Kamil, M. (2004). Vocabulary and comprehension instruction: Summary and implications of the National Reading Panel findings. In P. McCardle and V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 213–234).

Metsala, J. L. (1999) Young children's phonological awareness and nonword repetition as a function of vocabulary development. *Journal of Educational Psychology*, 91, 3–19.

Paynter, D. E., Bodrova, E., & Doty, J. K. (2005). *For the love of words: Vocabulary instruction that works, Grades K–6*. San Francisco: Jossey-Bass.

Simpson, J. A. (Ed.). (1989). *The Oxford English Dictionary* (2nd Edition, Vol. VII). Oxford: Oxford University Press.

Stahl, S. A., & Nagy, W. E. (2006) *Teaching word meanings*. Mahwah, NJ: Erlbaum.

Tannenbaum, K. R., Torgesen, J. T., & Wagner, R. K. (2006). Relationships between word knowledge and reading comprehension in 3rd grade children. *Scientific Studies of Reading*, 10, 381–398.

E-5. Structured Language Teaching: Text Comprehension

Content Knowledge	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
<p>1. Be familiar with teaching strategies that are appropriate before, during, and after reading and that promote reflective reading.</p> <p>2. Contrast the characteristics of major text genres, including narration, exposition, and argumentation.</p> <p>3. Understand the similarities and differences between written composition and text comprehension, and the usefulness of writing in building comprehension.</p> <p>4. Identify in any text the phrases, clauses, sentences, paragraphs and “academic language” that could be a source of miscomprehension.</p> <p>5. Understand levels of comprehension including the surface code, text base, and mental model (situation model).</p> <p>6. Understand factors that contribute to deep comprehension, including background knowledge, vocabulary, verbal reasoning ability, knowledge of literary structures and conventions, and use of skills and strategies for close reading of text.</p>	<p>1. a. State purpose for reading, elicit or provide background knowledge, and explore key vocabulary (Level 1). b. Query during text reading to foster attention to detail, inference-making, and mental model construction (Level 1). c. Use graphic organizers, note-taking strategies, retelling and summarizing, and cross-text comparisons (Level 1).</p> <p>2. Lesson plans reflect a range of genres, with emphasis on narrative and expository texts (Level 1).</p> <p>3. Model, practice, and share written responses to text; foster explicit connections between new learning and what was already known (Level 1).</p> <p>4. Anticipate confusions and teach comprehension of figurative language, complex sentence forms, cohesive devices, and unfamiliar features of text (Level 2).</p> <p>5. Plan lessons to foster comprehension of the surface code (the language), the text base (the underlying ideas), and a mental model (the larger context for the ideas) (Level 2).</p> <p>6. Adjust the emphasis of lessons to accommodate learners’ strengths and weaknesses and pace of learning (Level 2).</p>

Explanatory Notes

Good reading comprehension is the ultimate goal of reading instruction. Reading comprehension depends not only upon the component abilities discussed in previous sections, but also upon other factors, such as background knowledge and knowledge of text structure. In order to plan effective instruction and intervention in reading comprehension, teachers must understand the array of abilities that contribute to reading comprehension and use assessments to help pinpoint students’ weaknesses. For instance, a typical student with dyslexia, whose reading comprehension problems are associated mainly with poor decoding and dysfluent reading, will need different emphases in intervention than will a poor comprehender whose problems revolve

around broad weaknesses in vocabulary and oral comprehension. In addition, teachers must be able to model and teach research-based comprehension strategies, such as summarization and the use of graphic organizers, as well as use methods that promote reflective reading and engagement. Oral comprehension and reading comprehension have a reciprocal relationship; good oral comprehension facilitates reading comprehension, but wide reading also contributes to the development of oral comprehension, especially in older students. Teachers should understand the relationships among oral language, reading comprehension, and written expression, and they should be able to use appropriate writing activities to build students' comprehension.

References

Level 1

- Beck, I. L., & McKeown, M. G. (2006). *Improving comprehension with questioning the author: A fresh and expanded view of a powerful approach*. New York: Scholastic.
- Beck, I., McKeown, M., Hamilton, R., & Kucan, L. (1998). Getting at the meaning. *American Educator*, 22, 66–85.
- Caccamise, D., & Snyder, L. (Eds.). (2009). Reading comprehension: Issues and instructional applications. *Perspectives on Language and Literacy*, 35(2).
- Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator*, 22, 8–15.
- Rosenshine, B., & Meister, C. (1994). Reciprocal teaching: A review of the research. *Review of Educational Research*, 64, 479–530.
- Willingham, D. T. (2006). How knowledge helps: It speeds and strengthens reading comprehension, learning, and thinking. *American Educator*, 30(1), 30–37.
- Willingham, D. T. (2006-07). The usefulness of brief instruction in reading comprehension strategies. *American Educator*, 30(4), 39–45.

Level 2

- Barnes, M. A., Johnston, A. M., & Dennis, M. (2007). Comprehension in a neurodevelopmental disorder, Spina Bifida Myelomeningocele. In K. Cain & J. V. Oakhill (Eds.), *Children's comprehension problems in oral and written language: A cognitive perspective* (pp. 193–217). New York: Guilford Press.
- Cain, K., & Oakhill, J. V. (2007). Reading comprehension difficulties: Correlates, causes, and consequences. In K. Cain & J. V. Oakhill (Eds.), *Children's comprehension problems in oral and written language: A cognitive perspective* (pp. 81–103) New York: Guilford Press.
- Carlisle, J. R., & Rice, M. S. (2002). *Improving reading comprehension: Research-based principles and practices*. Baltimore: York Press.
- Catts, H. W., Fey, M. E., Zhang, X., & Tomblin, J. A. (1999). Language basis of reading and language disabilities: Evidence from a longitudinal investigation. *Scientific Studies of Reading*, 3, 331–361.
- Fuchs, D., Fuchs, L. S., Mathes, P. B., & Simmons, D. C. (1997). Peer-assisted learning strategies: Making classrooms more responsive to diversity. *American Educational Research Journal*, 34, 174–206.
- Gattardo, A., Stanovich, K., & Siegel, L. (1996). The relationships between phonological sensitivity, syntactic processing, and verbal working memory in the reading performance of third-grade children. *Journal of Experimental Child Psychology*, 63, 563–582.
- Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research*, 71, 279–320.
- Graesser, A. C. (2008). An introduction to strategic reading comprehension. In D. S. McNamara (Ed.), *Reading comprehension strategies: Theories, intervention and technologies* (pp. 3–26). New York: Erlbaum.
- 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(1), 8–21, 28–29, 50–51.
- Kamil, M. (2004). Vocabulary and comprehension instruction: Summary and implications of the National Reading Panel findings. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 213–234). Baltimore: Brookes.
- Kintsch, E. (2005). Comprehension theory as a guide for the design of thoughtful questions. *Topics in language disorders*, 25(1), pp. 51–64.

- Pressley, M. (2000). What should comprehension instruction be the instruction of? In M. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of Reading Research* (Vol. 3). Mahwah, NJ: Erlbaum.
- RAND Reading Study Group. (2002). Reading for understanding: Toward a research and development program in reading comprehension. Santa Monica, CA: RAND Corporation.
(<http://www.rand.org/multi/achievementforall/reading/readreport.html>.)
- Scarborough, H. (2001). 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: Guilford Press.
- Scott, C. (2004). Syntactic contributions to literacy development. In C. Stone, E. Stillman, B. Ehren, & K. Apel (Eds.). *Handbook of Language & Literacy* (pp. 340–362). New York: Guilford Press.
- Shankweiler, D., Lundquist, E., Katz, L., Stuebing, K. K., Fletcher, J. M., Brady, S., et al. (1999). Comprehension and decoding: Patterns of association in children with reading difficulties. *Scientific Studies of Reading, 31*, 24–35, 69–94.
- Stahl, K.A.D. (2004). Proof, practice, and promise: Comprehension strategy instruction in the primary grades. *The Reading Teacher, 57*, 598–609.
- Sweet, A. P., & Snow, C. E. (2003). *Rethinking reading comprehension*. New York: Guilford Press.
- Vaughn, S., & Klingner, J. K. (1999). Teaching reading comprehension through collaborative strategic reading. *Intervention in School and Clinic, 34*, 284–292.
- Westby, C. (2004). A language perspective on executive functioning, metacognition, and self-regulation in reading. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 398–427). New York: Guilford Press.
- Williams, J. P. (2006). Stories, studies, and suggestions about reading. *Scientific studies of reading, 10*(2), 121–142.

E-6. Structured Language Teaching: Handwriting, Spelling, and Written Expression

Content Knowledge	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
<p>Handwriting</p> <ol style="list-style-type: none"> 1. Know research-based principles for teaching letter naming and letter formation, both manuscript and cursive. 2. Know techniques for teaching handwriting fluency. 	<p>Handwriting</p> <ol style="list-style-type: none"> 1. Use multisensory techniques to teach letter naming and letter formation in manuscript and cursive forms (Level 1). 2. Implement strategies to build fluency in letter formation, and copying and transcription of written language (Level 1).
<p>Spelling</p> <ol style="list-style-type: none"> 1. Recognize and explain the relationship between transcription skills and written expression. 2. Identify students' levels of spelling development and orthographic knowledge. 3. Recognize and explain the influences of phonological, orthographic, and morphemic knowledge on spelling. 	<p>Spelling</p> <ol style="list-style-type: none"> 1. Explicitly and effectively teach (e.g., information taught is correct, students are attentive, teacher checks for understanding, teacher scaffolds students' learning) concepts related to spelling (e.g., a rule for adding suffixes to base words) (Level 1). 2. Select materials and/or create lessons that address students' skill levels (Level 1). 3. Analyze a student's spelling errors to determine his or her instructional needs (e.g., development of phonological skills versus learning spelling rules versus application of orthographic or morphemic knowledge in spelling) (Level 2).
<p>Written Expression</p> <ol style="list-style-type: none"> 1. Understand the major components and processes of written expression and how they interact (e.g., basic writing/ transcription skills versus text generation). 2. Know grade and developmental expectations for students' writing in the following areas: mechanics and conventions of writing, composition, revision, and editing processes. 	<p>Written Expression</p> <ol style="list-style-type: none"> 1. Integrate basic skill instruction with composition in writing lessons. 2. <ol style="list-style-type: none"> a. Select and design activities to teach important components of writing, including mechanics/ conventions of writing, composition, and revision and editing processes. b. Analyze students' writing to determine specific instructional needs. c. Provide specific, constructive feedback to students targeted to students' most critical needs in writing. d. Teach research-based writing strategies such as those for planning, revising, and editing text.

3. Understand appropriate uses of assistive technology in written expression.

e. Teach writing (discourse) knowledge, such as the importance of writing for the intended audience, use of formal versus informal language, and various schemas for writing (e.g., reports versus narratives versus arguments).

3. Make appropriate written recommendations for the use of assistive technology in writing.

Explanatory Notes

Just as teachers need to understand the component abilities that contribute to reading comprehension, they also need a componential view of written expression. Important component abilities in writing include basic writing (transcription) skills such as handwriting, keyboarding, spelling, capitalization, punctuation, and grammatical sentence structure; text generation (composition) processes that involve translating ideas into language, such as appropriate word choice, writing clear sentences, and developing an idea across multiple sentences and paragraphs; and planning, revision and editing processes. Effective instruction and intervention in written expression depend on pinpointing an individual student's specific weaknesses in these different component areas of writing, as well as on teachers' abilities to provide explicit, systematic teaching in each area. Teachers must also be able to teach research-based strategies in written expression, such as those involving strategies for planning and revising compositions, and they should understand the utility of multisensory methods in both handwriting and spelling instruction. Assistive technology can be especially helpful for students with writing difficulties. Teachers should recognize the appropriate uses of technology in writing (e.g., spell-checkers can be valuable but do not replace spelling instruction and have limited utility for students whose misspellings are not recognizable). Specialists should have even greater levels of knowledge about technology.

References

Level 1

Berninger, V., & Wolf, B. (2009) *Teaching students with dyslexia and dysgraphia*. Baltimore: Brookes.

Graham, S., McArthur, C.A., & Fitzgerald, J. (Eds.). (2007). *Best practices in writing instruction*. New York: Guilford Press.

Joshi, M., Treiman, R., Carreker, S., & Moats, L. C. (2008/2009) How words cast their spell: Spelling is an integral part of learning the language, not a matter of memorization. *American Educator*, 32(4), 6–16, 42–43.

Moats, L. C. (Winter 2005/06). How spelling supports reading: And why it is more regular and predictable than you think. *American Educator*, 12–22, 42–43.

Level 2

Berninger, V. W., Abbott, R. D., Jones, J., Gould, L., Anderson-Youngstrom, M., Shimada, S., et al. (2006). Early development of language by hand: Composing, reading, listening, and speaking connections; three letter-writing modes; and fast mapping in spelling. *Developmental Neuropsychology*, 29, 61–92.

Berninger, V. W., & Amtmann, D. (2003). Preventing written expression disabilities through early and continuing assessment and intervention for handwriting and/or spelling problems: Research into practice. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of Learning Disabilities* (pp. 345–363). New York: Guilford Press.

Cassar, M., Treiman, R., Moats, L., Pollo, T. C., & Kessler, B. (2005). How do the spellings of children with dyslexia compare with those of nondyslexic children? *Reading and Writing*, 18, 27–49.

Edwards, L. (2003). Writing instruction in kindergarten: Examining an emerging area of research for children with writing and reading difficulties. *Journal of Learning Disabilities*, 36, 136.

- Englert, C. S., Wu, X., & Zhao, Y. (2005). Cognitive tools for writing: Scaffolding the performance of students through technology. *Learning Disabilities Research & Practice, 20*, 184–198.
- Gersten, R., & Baker, S. (2001). Teaching expressive writing to students with learning disabilities: A meta-analysis. *Elementary School Journal, 101*, 251–272.
- Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools – A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.
- Troia, G. (Ed.). (2009) *Instruction and assessment for struggling writers: Evidence-based practices*. New York: Guilford Press.

F. Follow Ethical Standards for the Profession

Ethical Principles for Service Providers, Conference Exhibitors, and Advertisers

These principles are to be used by employees, board members, and branch officers of the International Dyslexia Association (IDA) in deciding whether members, conference exhibitors, conference or workshop presenters, and/or advertisers in IDA publications are serving the best interest of the public. These principles are intended to safeguard and promote the well-being of individuals with dyslexia and related learning difficulties, to promote the dissemination of reliable and helpful information, and to ensure that standards of best practice are upheld by the organization and its activities.

Practitioners, publishers, presenters, exhibitors, advertisers, and any others who provide services to individuals with dyslexia and related difficulties:

1. strive to do no harm and to act in the best interests of those individuals;
2. maintain the public trust by providing accurate information about currently accepted and scientifically supported best practices in the field;
3. avoid misrepresentation of the efficacy of educational or other treatments or the proof for or against those treatments;
4. respect objectivity by reporting assessment and treatment results accurately, honestly, and truthfully;
5. avoid making unfounded claims of any kind regarding the training, experience, credentials, affiliations, and degrees of those providing services;
6. respect the training requirements of established credentialing and accreditation organizations supported by IDA;
7. engage in fair competition;
8. avoid conflicts of interest when possible and acknowledge conflicts of interest when they occur;
9. support just treatment of individuals with dyslexia and related learning difficulties;
10. respect confidentiality of students or clients; and
11. respect the intellectual property of others.

SECTION II: GUIDELINES PERTAINING TO SUPERVISED PRACTICE OF TEACHERS OF STUDENTS WITH DOCUMENTED READING DISABILITIES OR DYSLEXIA WHO WORK IN SCHOOL, CLINICAL, OR PRIVATE PRACTICE SETTINGS¹

Training programs for individuals who are learning to work with challenging students often distinguish levels of expertise by the skills and experience of the individual and the amount of supervised practice required for certification. These levels are labeled differently by various programs and are distinguished here by the designation of “Level I” and “Level II.”

- A. Level I individuals are practitioners with basic knowledge who:
 1. demonstrate proficiency to instruct individuals with a documented reading disability or dyslexia;
 2. implement an appropriate program with fidelity; and
 3. formulate and implement an appropriate lesson plan.
- B. Level II individuals are specialists with advanced knowledge who:
 1. may work in private practice settings, clinics, or schools;
 2. demonstrate proficiency in assessment and instruction of students with documented reading disabilities or dyslexia;
 3. implement and adapt research-based programs to meet the needs of individuals.

To attain Level I status, an individual must:

- pass an approved basic knowledge proficiency exam;
- complete a one-to-one practicum with a student or small group of one to three well-matched students who have a documented reading disability. A recognized, certified instructor* provides consistent oversight and observations of instruction delivered to the same student(s) over time, and the practicum continues until expected proficiency is reached.**
- demonstrate (over time) instructional proficiency in all Level 1 areas outlined on IDA Knowledge and Practice Standards, Section I that is responsive to student needs.
- Document significant student progress with formal and informal assessments as a result of the instruction.

To attain Level II status, an individual must:

- Pass an approved advanced knowledge proficiency exam
- Complete a 1:1 practicum with a student or small group of well-matched students (1–3) who have a documented reading disability. A recognized, certified instructor* provides consistent oversight and observations of instruction delivered to the same student(s) over time, and the practicum continues until expected proficiency is reached.**
- Demonstrate (over time) diagnostic instructional proficiency in all Level 1 and 2 areas outlined on IDA Standards document, Section I.
- Provide successful instruction to several individuals with dyslexia who demonstrate varying needs and document significant student progress with formal and informal assessments as a result of the instruction.
- Complete an approved educational assessment of a student with dyslexia and/or language-based reading disability, including student history and comprehensive recommendations.

¹ (Tier 3 in an RTI system; students who may be eligible for special education or intensive intervention; students referred for clinical services because of learning difficulties; or students who qualify for dyslexia intervention services where available.)

*A recognized or certified instructor is an individual who has met all of the requirements of the level they supervise but who has additional content knowledge and experience in implementing and observing instruction for students with dyslexia and other reading difficulties in varied settings. A recognized instructor has been recommended by or certified by an approved trainer mentorship program that meets these standards. The trainer mentorship program has been reviewed by and approved by the IDA Standards and Practices Committee.

**Documentation of proficiency must be 1) completed by a recognized/certified instructor providing oversight in the specified program; 2) completed during full (not partial) lesson observations; and 3) must occur at various intervals throughout the instructional period with student.

©2010, by The International Dyslexia Association® (IDA).

All rights reserved.

IDA encourages the reproduction and distribution of this document.

If portions of the text are cited, appropriate reference must be made.

This document may not be reprinted for the purpose of resale.