



# **Knowledge and Practice Standards for Teachers of Reading**

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## Executive Summary

### Reading Difficulties Affect a Large Proportion of the Student Population

Learning to read and write is not natural or easy for many—if not most—students. Learning to read requires mastery of a complex web of underlying language skills that, for the large majority, must be explicitly taught and learned over several years. Reading, spelling, writing, and language abilities exist on a continuum, with only about a third of the students in the United States demonstrating proficient or advanced literacy skills by 4<sup>th</sup> grade. On the lower end of the distribution, the National Assessment of Educational Progress (NAEP) consistently finds that about 32% of all fourth-graders read at a level described as “below basic,” which is not sufficient to support grade-level academic work. The proportion of struggling students is far higher in minority and poorer communities. While most of these students will not qualify for special education under federal laws, their reading and language weaknesses must be addressed. Most of these at-risk students will depend on instruction given in the regular classroom, supplemented by small-group instruction within a response-to-intervention (RTI) framework. The 6–8% of students who may qualify for special education services for suspected learning disabilities will typically demonstrate severe difficulties with language, reading, and writing, but will still be participating in general education classrooms. Clearly, the responsibility for teaching reading and writing to all students resides first with classroom teachers and secondarily with reading specialists, providers of supplementary services, and special education personnel.

### Effective Instruction Is Key to Prevention and Intervention

Although dyslexia and related reading and language problems may originate with neurobiological differences, they are mainly treated with skilled teaching. Effective classroom instruction delivered by a knowledgeable teacher, especially in the early grades, can prevent or at least effectively address and limit the severity of reading and writing problems. Potential reading failure can be recognized as early as preschool and kindergarten, if not sooner. A large body of research evidence shows that with appropriate, intensive instruction, all but the most severe reading disabilities can be ameliorated in the early grades, and students can get on track toward academic success. For those students with persistent dyslexia, who need specialized instruction outside of the regular classroom, competent intervention from a specialist can lessen the impact of the disorder and help the student overcome and manage the most debilitating symptoms.

What is the nature of effective instruction for most students who are learning to read? The methods supported by research are explicit, systematic, cumulative, and multisensory in that they integrate listening, speaking, reading, and writing. They are also multilinguistic, as they directly teach the structure of language at all levels, including the speech sound system (phonology), the writing system (orthography), the structure of sentences (syntax), the meaningful parts of words (morphology), word and phrase meanings (semantics), and the organization of spoken and written discourse. The strategies emphasize planning, organization, attention to task, critical thinking, and self-management. Such aspects of instruction are important for all students who are acquiring new concepts, skills, and strategies, but they are especially critical for students with language-learning weaknesses, including dyslexia. A shift to more student-centered, workshop-oriented approaches is only appropriate after students are secure with the fundamentals.

## Structured Literacy

Structured Literacy is an approach to reading instruction that is beneficial for both general education students at risk for reading difficulties due to a variety of factors (e.g., low socioeconomic status, status as an English learner (EL)) *and* for students with disabilities.

This approach is characterized by the provision of systematic, explicit instruction that integrates listening, speaking, reading, and writing and emphasizes the structure of language across the speech sound system (phonology), the writing system (orthography), the structure of sentences (syntax), the meaningful parts of words (morphology), the relationships among words (semantics), and the organization of spoken and written discourse.

The following instructional principles are associated with the provision of Structured Literacy instruction:

1. Instructional tasks are modeled, when appropriate.
2. Explicit instruction is provided.
3. Meaningful interactions with language occur during the lesson.
4. Multiple opportunities are provided to practice instructional tasks.
5. Corrective feedback is provided after initial student responses.
6. Student effort is encouraged.
7. Lesson engagement during teacher-led instruction is monitored.
8. Lesson engagement during independent work is monitored.
9. Students successfully complete activities at a high criterion level of performance.

## Are Teachers Prepared?

Teaching language, reading, and writing effectively, especially to students experiencing difficulty, requires considerable knowledge and skill. Regrettably, the licensing and professional development practices currently endorsed by many states are insufficient for the preparation and support of teachers and specialists. Researchers are finding that individuals with reading specialist and special education licenses often know no more about research-based, effective practices than those individuals with general education teaching licenses. The majority of practitioners at all levels have not been prepared in sufficient depth to prevent reading problems, to recognize the early signs of risk, or to teach students with dyslexia and related learning disabilities successfully. Inquiries into teacher preparation in reading have revealed a pervasive absence of rich content and academic rigor in many courses that lead to the 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. When tests are aligned with scientific research, far too many teacher candidates are unable to pass them. To address these gaps and promote more rigorous, meaningful, and effective teacher preparation and professional development, the Center for Effective Reading Instruction (CERI) has adopted this set of knowledge and practice standards.

## Standards for Informed Practice

Although programs that prepare or support teachers, clinicians, or specialists differ in their methodologies, teaching approaches, and organizational purposes, they should ascribe to a common set of professional standards for the benefit of the students they serve.

The *Knowledge and Practice Standards for Teachers of Reading* explicitly sets forth the knowledge and skills that all teachers of reading are expected to possess to advance students' reading and writing profiles from a Structured Literacy approach in classroom, remedial, and clinical settings.

These standards reflect the current state of the scientific research base and are the result of a rigorous development and vetting process that included the input of a wide range of stakeholders, including researchers, educators, higher education faculty, clinical specialists, parents, and advocates.

Standard 1 addresses foundational concepts, derived from interdisciplinary research, about reading development and reading difficulties. Standard 2 covers knowledge of diverse reading profiles, including dyslexia. Standard 3 pertains to knowledge of assessment. Standard 4 addresses Structured Literacy teaching, offering detailed guidance with regard to the nature of effective instruction in each major domain (phonological sensitivity and phoneme awareness, phonics and word recognition, reading fluency, vocabulary, listening and reading comprehension, and written expression). Standard 4 also offers guidance regarding expectations for teachers engaged in fieldwork or practicum (e.g., in interpretation of assessments, planning differentiated instruction, lesson design, corrective feedback, and so forth). Standard 5 delineates ethical standards for the profession.

## Guidance and Support for Preservice and In-service Teachers

Learning to teach reading, language, and writing is a complex undertaking. The competence and expertise of regular classroom teachers is the most important factor in determining who will learn to read, write, and use language well enough to succeed academically. General education teachers, as well as those who provide intervention and specialized instruction, deserve preservice courses that prepare them to teach all students, including those who may be off-track or struggling. Licensed, practicing teachers can still learn these critical skills through substantive in-service coursework. Preparatory and in-service coursework should emphasize the study of reading development, the structure of language, the nature of individual differences, and the methods of Structured Literacy for all those who must be taught how to read. When teachers are better prepared, the impact of reading difficulties, including dyslexia, will be lessened, and many more students will receive the instruction and support that they require to succeed academically.

## INTRODUCTION

### Purpose of These Standards

The Knowledge and Practice Standards are to be used to guide the preparation, certification, and professional development of those individuals 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 individuals responsible for teaching reading should know and be able to do so reading difficulties, including dyslexia, may be prevented, alleviated, or remediated.

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, and 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 31% of all fourth graders read at a level described as “below basic,” and only about a third are proficient or advanced. 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 or language-based learning disorders who need specialized instruction outside of the regular classroom, 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 who are struggling, requires considerable knowledge and skill. Regrettably, current licensing and professional development practices endorsed by many states are insufficient for the preparation and support of the teachers and specialists who are responsible for enabling *all* students to read and write. Researchers are finding that those individuals with reading specialist and special education licenses often know no more about research-based, effective practices than those individuals with a general education teaching license. The majority of practitioners at all levels have not been prepared in sufficient depth to recognize the early signs of risk, to prevent reading problems, or to teach students with dyslexia and related learning difficulties successfully. Inquiries into teacher preparation in reading have revealed a pervasive absence of substantive content and academic rigor in many courses that lead to the 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. And finally, existing standards for preparation of teachers of reading address literacy very broadly, but in much less detail than is specified here. To address these gaps, CERI has adopted these standards for knowledge, practice, and ethical conduct.

## Research-based Assumptions About Reading Difficulties, Including Dyslexia

These standards are broadly constructed to address the knowledge and skill base for teaching reading in preventive, intervention, and remedial settings, especially to students at risk for reading failure. Underlying the standards are assumptions about the nature, prevalence, manifestations, and treatments for reading and writing difficulties that are supported by research and by accepted diagnostic guidelines. These assumptions are as follows:

- Reading skill is distributed on a continuum; students may experience mild, moderate, or severe problems with some or all of the essential subskills of reading. Mild and moderate difficulties are most likely to be addressed through general education with supplemental small-group support.
- Reading difficulty, especially when manifested early in reading development, involves inaccurate and/or slow recognition of printed words.
- Dyslexia is the appropriate name for disorders of word recognition and spelling that originate from core problems in phonological and/or orthographic processing. Many, if not most, students with word-level reading and spelling problems will never receive an official diagnosis or be served through special education, but they will nonetheless be the responsibility of general education and intervention teachers.
- A smaller subgroup of students demonstrates primary difficulties with language comprehension, in conjunction with inadequate word-recognition skills.
- Some students experience a primary problem with the development of fluent, automatic reading, and the slow rate of their reading impairs their academic functioning.
- Different kinds of reading and writing difficulties require different approaches to instruction. One program or approach will not meet the needs of all students.
- Although early intervention is the most effective way to prevent and ameliorate learning problems, individuals with dyslexia and other reading difficulties can be helped at any age.
  - Dyslexia and related learning difficulties often exist in individuals with aptitudes, talents, and abilities that enable them to be successful in many domains.

### Uses for These Standards

The standards outline the (1) content knowledge necessary to teach essential reading and writing skills and strategies to students in general, intervention, and remedial contexts; 2) universal principles and practices of effective instruction; and 3) ethical conduct expected of professional educators and clinicians.

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

- educator preparation program accreditation;
- educator certification;
- course design and course sequencing within teacher certification programs;
- delineation of fieldwork requirements and observation checklists; and
- a content framework for the development of licensing or certification examinations.

## How to Read and Cite the Standards

The *Knowledge and Practice Standards of Teachers of Reading* are organized into five major content areas. Each knowledge standard, in the left column, is numbered to indicate the larger content domain to which it belongs. Examples of how each item within the domain might be observed, tested, or applied are aligned in columns to the right of each standard. The five content domains are as follows:

- Standard 1 addresses foundational concepts about reading development and reading difficulties that are derived from interdisciplinary research.
- Standard 2 covers knowledge of diverse profiles of reading difficulty, including dyslexia, very slow reading, and language comprehension problems.
- Standard 3 pertains to knowledge of assessment relevant to evidence-based practices with a response-to-intervention (RTI) framework.
- Standard 4 addresses Structured Literacy teaching, offering detailed guidance with regard to the nature of effective instruction in each major skill domain (phonological sensitivity and phoneme awareness, phonics and word recognition, reading fluency, vocabulary, listening and reading comprehension, and written expression). Standard 4 also offers guidance regarding expectations for teachers engaged in fieldwork or practicum (e.g., in interpretation of assessments, planning differentiated instruction, lesson design, corrective feedback, and so forth).
- Standard 5 delineates ethical standards for the profession.

Standards 1, 2, and 3 specify examples of tasks and activities that might demonstrate understanding of the knowledge standard that coursework designers could expect of their students. Standard 4 elaborates the meaning of Structured Literacy instruction by further enumerating examples of the teaching practices that might be expected in a practicum or fieldwork setting. These examples are offered for guidance only; course designers may certainly design other activities and tasks that replace or improve upon those proposed in this document.

When citing the Standards for inclusion on syllabi or training materials, please reference the standard and substandard. For example, KPS 4A.3 (Understand rationale for/Adapt instruction to accommodate individual differences in cognitive, linguistic, sociocultural, and behavioral aspects of learning). The citation for referencing this document follows:

International Dyslexia Association. (2018, March). *Knowledge and Practice Standards for Teachers of Reading*. Retrieved from <https://dyslexiaida.org/knowledge-and-practices/>

## Knowledge and Practice Standards for Teachers of Reading Summary Table

*Does Not Include Knowledge and Practice Examples*

### Standard I: Foundations of Literacy Acquisition

1.1	Understand the (5) language processing requirements of proficient reading and writing: phonological, orthographic, semantic, syntactic, discourse.
1.2	Understand that learning to read, for most people, requires explicit instruction.
1.3	Understand the reciprocal relationships among phonemic awareness, decoding, word recognition, spelling, and vocabulary knowledge.
1.4	Identify and explain aspects of cognition and behavior that affect reading and writing development.
1.5	Identify (and explain how) environmental, cultural, and social factors contribute to literacy development.
1.6	Explain major research findings regarding the contribution of linguistic and cognitive factors to the prediction of literacy outcomes.
1.7	Understand the most common intrinsic differences between good and poor readers (i.e., linguistic, cognitive, and neurobiological).
1.8	Know phases in the typical developmental progression of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression.
1.9	Understand the changing relationships among the major components of literacy development in accounting for reading achievement.

### Standard 2: Knowledge of Diverse Reading Profiles, Including Dyslexia

2.1	Recognize the tenets of the (2003) IDA definition of dyslexia, or any accepted revisions thereof.
2.2	Know fundamental provisions of federal and state laws that pertain to learning disabilities, including dyslexia and other reading and language disability subtypes.
2.3	Identify the distinguishing characteristics of dyslexia.
2.4	Understand how reading disabilities vary in presentation and degree.
2.5	Understand how and why symptoms of reading difficulty are likely to change over time in response to development and instruction.

### Standard 3: Assessment

3.1	Understand the differences among and purposes for screening, progress-monitoring, diagnostic, and outcome assessments.
3.2	Understand basic principles of test construction and formats (e.g., reliability, validity, criterion, normed).
3.3	Interpret basic statistics commonly utilized in formal and informal assessment.
3.4	Know and utilize in practice well-validated screening tests designed to identify students at risk for reading difficulties.
3.5	Understand/apply the principles of progress-monitoring and reporting with Curriculum-Based Measures (CBMs), including graphing techniques.
3.6	Know and utilize in practice informal diagnostic surveys of phonological and phoneme awareness, decoding skills, oral reading fluency, comprehension, spelling, and writing.
3.7	Know how to read and interpret the most common diagnostic tests used by psychologists, speech-language professionals, and educational evaluators.
3.8	Integrate, summarize, and communicate (orally and in writing) the meaning of educational assessment data for sharing with students, parents, and other teachers.

<b>Standard 4: Structured Literacy Instruction</b>	
<b>Substandard A: Essential Principles and Practices of Structured Literacy Instruction</b>	
4A.1	Understand/apply in practice the general principles and practices of structured language and literacy teaching, including explicit, systematic, cumulative, teacher-directed instruction.
4A.2	Understand/apply in practice the rationale for multisensory and multimodal language-learning techniques.
4A.3	Understand rationale for/Adapt instruction to accommodate individual differences in cognitive, linguistic, sociocultural, and behavioral aspects of learning.
<b>Substandard B: Phonological and Phonemic Awareness</b>	
4B.1	Understand rationale for/identify, pronounce, classify, and compare all the consonant phonemes and all the vowel phonemes of English.
4B.2	Understand/apply in practice considerations for levels of phonological sensitivity.
4B.3	Understand/apply in practice considerations for phonemic-awareness difficulties.
4B.4	Know/apply in practice consideration for the progression of phonemic-awareness skill development, across age and grade.
4B.5	Know/apply in practice considerations for the general and specific goals of phonemic-awareness instruction.
4B.6	Know/apply in practice considerations for the principles of phonemic-awareness instruction: brief, multisensory, conceptual, articulatory, auditory-verbal.
4B.7	Know/apply in practice considerations for the utility of print and online resources for obtaining information about languages other than English.
<b>Substandard C: Phonics and Word Recognition</b>	
4C.1	Know/apply in practice considerations for the structure of English orthography and the patterns and rules that inform the teaching of single- and multisyllabic regular word reading.
4C.2	Know/apply in practice considerations for systematically, cumulatively, and explicitly teaching basic decoding and spelling skills.
4C.3	Know/apply in practice considerations for organizing word recognition and spelling lessons by following a structured phonics lesson plan.
4C.4	Know/apply in practice considerations for using multisensory routines to enhance student engagement and memory.
4C.5	Know/apply in practice considerations for adapting instruction for students with weaknesses in working memory, attention, executive function, or processing speed.
4C.6	Know/apply in practice considerations for teaching irregular words in small increments using special techniques.
4C.7	Know/apply in practice considerations for systematically teaching the decoding of multisyllabic words.
4C.8	Know/apply in practice considerations for the different types and purposes of texts, with emphasis on the role of decodable texts in teaching beginning readers.
<b>Substandard D: Automatic, Fluent Reading of Text</b>	
4D.1	Know/apply in practice considerations for the role of fluent word-level skills in automatic word reading, oral reading fluency, reading comprehension, and motivation to read.
4D.2	Know/apply in practice considerations for varied techniques and methods for building reading fluency.
4D.3	Know/apply in practice considerations for text reading fluency as an achievement of normal reading development that can be advanced through informed instruction and progress-monitoring practices.
4D.4	Know/apply in practice considerations for appropriate uses of assistive technology for students with serious limitations in reading fluency.
<b>Substandard E: Vocabulary</b>	
4E.1	Know/apply in practice considerations for the role of vocabulary development and vocabulary knowledge in oral and written language comprehension.
4E.2	Know/apply in practice considerations for the sources of wide differences in students' vocabularies.
4E.3	Know/apply in practice considerations for the role and characteristics of indirect (contextual) methods of vocabulary instruction.
4E.4	Know/apply in practice considerations for the role and characteristics of direct, explicit methods of vocabulary instruction.
<b>Substandard F: Listening and Reading Comprehension</b>	
4F.1	Know/apply in practice considerations for factors that contribute to deep comprehension.
4F.2	Know/apply in practice considerations for instructional routines appropriate for each major genre: informational text, narrative text, and argumentation.
4F.3	Know/apply in practice considerations for the role of sentence comprehension in listening and reading comprehension.

4F.4	Know/apply in practice considerations for the use of explicit comprehension strategy instruction, as supported by research.
4F.5	Know/apply in practice considerations for the teacher's role as an active mediator of text-comprehension processes.
<b>Substandard G: Written Expression</b>	
4G.1	Understand the major skill domains that contribute to written expression.
4G.2	Know/apply in practice considerations for research-based principles for teaching letter formation, both manuscript and cursive.
4G.3	Know/apply in practice considerations for research-based principles for teaching written spelling and punctuation.
4G.4	Know/apply in practice considerations for the developmental phases of the writing process.
4G.5	Know/apply in practice considerations for the appropriate uses of assistive technology in written expression.
<b>Standard 5: Professional Dispositions and Practices</b>	
5.1	Strive to do no harm and to act in the best interests of struggling readers and readers with dyslexia and other reading disorders.
5.2	Maintain the public trust by providing accurate information about currently accepted and scientifically supported best practices in the field.
5.3	Avoid misrepresentation of the efficacy of educational or other treatments or the proof for or against those treatments.
5.4	Respect objectivity by reporting assessment and treatment results accurately, and truthfully.
5.5	Avoid making unfounded claims of any kind regarding the training, experience, credentials, affiliations, and degrees of those providing services.
5.6	Respect the training requirements of established credentialing and accreditation organizations supported by CERI and IDA.
5.7	Avoid conflicts of interest when possible and acknowledge conflicts of interest when they occur.
5.8	Support just treatment of individuals with dyslexia and related learning difficulties.
5.9	Respect confidentiality of students or clients.
5.10	Respect the intellectual property of others.

## Knowledge and Practice Standards for Teachers of Reading

### Includes Knowledge and Practice Examples

#### STANDARD 1: FOUNDATIONS OF LITERACY ACQUISITION

Substandard	Examples of Coursework Expectations
1.1 Understand the (5) language processing requirements of proficient reading and writing: phonological, orthographic, semantic, syntactic, discourse.	<ul style="list-style-type: none"> <li>• Explain the domains of language (phonology, morphology, syntax, semantics, pragmatics) and their importance to proficient reading and writing.</li> </ul>
1.2 Understand that learning to read, for most people, requires explicit instruction.	<ul style="list-style-type: none"> <li>• Explain how most people learn to read, how reading acquisition differs from language acquisition, and how writing systems differ from oral language systems.</li> <li>• Know that the brain has to establish new neural circuits, linking language and visual regions, to become skilled at reading.</li> </ul>
1.3 Understand the reciprocal relationships among phonemic awareness, decoding, word recognition, spelling, and vocabulary knowledge.	<ul style="list-style-type: none"> <li>• Cite evidence and give practical examples showing how phonemic awareness affects attaining the alphabetic principle, decoding and spelling development, and storage and retrieval of spoken words, and that learning to read affects aspects of language processing, including the extent of phonemic awareness and precision of phonological representations of words in our mental dictionaries.</li> </ul>
1.4 Identify and explain aspects of cognition and behavior that affect reading and writing development.	<ul style="list-style-type: none"> <li>• Cite examples of tasks or tests that measure each general cognitive factor; explain how problems in these areas might be observed in classroom learning.</li> <li>• Identify how the following aspects of cognition and behavior affect reading and writing development: attention, automaticity, executive function, verbal memory, processing speed, graphomotor control.</li> </ul>
1.5 Identify (and explain how) environmental, cultural, and social factors contribute to literacy development.	<ul style="list-style-type: none"> <li>• Explain major research findings regarding the contribution of environmental factors to the prediction of literacy outcomes (e.g., language spoken at home, language and literacy experiences, cultural values).</li> </ul>
1.6 Explain major research findings regarding the contribution of linguistic and cognitive factors to the prediction of literacy outcomes.	<ul style="list-style-type: none"> <li>• Identify and explain the contribution of linguistic and cognitive factors to the prediction of literacy outcomes.</li> </ul>
1.7 Understand the most common intrinsic differences between good and poor readers (i.e., linguistic, cognitive, and neurobiological).	<ul style="list-style-type: none"> <li>• Explain the defining characteristics of major types of reading difficulties (i.e., dyslexia, fluency deficits, specific reading comprehension difficulties, mixed reading difficulties).</li> <li>• Recognize the major types of reading difficulties when they manifest in a student's developmental history, test performance, and reading behavior.</li> </ul>
1.8 Know phases in the typical developmental progression of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression.	<ul style="list-style-type: none"> <li>• Identify the most salient instructional needs of students who are at different points of reading and writing development.</li> </ul>
1.9 Understand the changing relationships among the major components of literacy development in accounting for reading achievement.	<ul style="list-style-type: none"> <li>• Explain the importance of code-emphasis instruction in the early grades and language comprehension once word-recognition skill is established; recognize that vocabulary and other aspects of oral language development must be nurtured from the earliest grades through reading aloud and classroom dialogue.</li> </ul>

**STANDARD 2: KNOWLEDGE OF DIVERSE READING PROFILES, INCLUDING DYSLEXIA**

<b>Substandard</b>	<b>Examples of Coursework Expectations</b>
2.1 Recognize the tenets of the (2003) IDA definition of dyslexia, or any accepted revisions thereof.	<ul style="list-style-type: none"> <li>• Explain the reasoning or evidence behind key terms in the definition (e.g., neurobiological origin, phonological component of language); distinguish evidence-based tenets from popular but unsupported beliefs and claims about dyslexia (e.g., dyslexia is a visual problem; people with dyslexia have unusual talents).</li> </ul>
2.2 Know fundamental provisions of federal and state laws that pertain to learning disabilities, including dyslexia and other reading and language disability subtypes.	<ul style="list-style-type: none"> <li>• Explain the most fundamental provisions of federal and state laws (IDEA, 504, etc.) 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.</li> <li>• Distinguish IEP goals and objectives that are clear, specific, appropriate to students' needs, and attainable.</li> </ul>
2.3 Identify the distinguishing characteristics of dyslexia.	<ul style="list-style-type: none"> <li>• Cite research-based prevalence estimates for disorders of word recognition, reading fluency, reading comprehension, spelling, handwriting and written expression; cite research-based differences between good and poor readers, depending on the kind of reading disability, with regard to learning word-recognition and decoding skills as compared to listening and reading comprehension.</li> </ul>
2.4 Understand how reading disabilities vary in presentation and degree.	<ul style="list-style-type: none"> <li>• Recognize levels of instructional intensity, frequency, and duration appropriate for mild, moderate, and severe reading disabilities with the scope of instruction corresponding to the type of reading difficulties (e.g., dyslexia, specific reading comprehension) to attain catch-up growth and annual growth. Identify how to coordinate regular classroom instruction and other forms of intervention, including highly specialized settings.</li> <li>• Recognize the indicators of a primary disability in reading fluency, including slow processing speed, slow RAN, and nonautomatic word recognition (failure to read words by sight).</li> </ul>
2.5 Understand how and why symptoms of reading difficulty are likely to change over time in response to development and instruction.	<ul style="list-style-type: none"> <li>• Recognize how the symptoms of dyslexia or other reading difficulties change as literacy develops and how instructional priorities and emphases should change accordingly.</li> </ul>

<b>STANDARD 3: ASSESSMENT</b>	
<b>Substandard</b>	<b>Examples of Coursework Expectations</b>
3.1 Understand the differences among and purposes for screening, progress-monitoring, diagnostic, and outcome assessments.	<ul style="list-style-type: none"> <li>• State the major purposes for each kind of assessment and identify examples of each.</li> </ul>
3.2 Understand basic principles of test construction and formats (e.g., reliability, validity, criterion, normed).	<ul style="list-style-type: none"> <li>• Distinguish examples of valid and invalid assessment tools or strategies; demonstrate respect for and fidelity to standardized administration procedures.</li> </ul>
3.3 Interpret basic statistics commonly utilized in formal and informal assessment.	<ul style="list-style-type: none"> <li>• Interpret grade equivalents, age equivalents, normal curve equivalents, percentiles, risk classifications, fluency norms, and standard scores.</li> <li>• Recognize the most appropriate types of norm-referenced scores to report and use for interpretation of performance (e.g., percentiles and standard scores rather than grade or age equivalents); interpret grade versus age norms.</li> </ul>
3.4 Know and utilize in practice well-validated screening tests designed to identify students at risk for reading difficulties.	<ul style="list-style-type: none"> <li>• Learn standardized administration of one valid, reliable screening test, administer it to a student or a group of students, and interpret the instructional implications of the results. A valid screening tool that flags students at risk for reading difficulties is likely to selectively, briefly, and efficiently sample subskills such as the following: <ul style="list-style-type: none"> <li>• Letter naming</li> <li>• Phoneme isolation and identification, segmentation, blending, and/or manipulation</li> <li>• Phonics correspondences (sound-symbol relationships)</li> <li>• Spelling and phonetic accuracy of spelling attempts</li> <li>• Word reading, real and/or nonsense words</li> <li>• Oral reading fluency (timed reading of short passages)</li> <li>• Reading comprehension</li> </ul> </li> </ul>
3.5 Understand/apply the principles of progress monitoring and reporting with CBMs, including graphing techniques.	<ul style="list-style-type: none"> <li>• Administer, interpret, and graph or summarize the results of CBMs that directly assess student progress in reading, spelling, and writing and/or the relevant literacy subskills that are targeted for instruction.</li> <li>• Explain the advantages of CBM for progress monitoring (e.g., ease and speed of administration, sensitivity to incremental progress, availability of multiple equivalent forms).</li> </ul>

<p>3.6 Know and utilize in practice informal diagnostic surveys of phonological and phonemic awareness, decoding skills, oral reading fluency, comprehension, spelling, and writing.</p>	<ul style="list-style-type: none"> <li>• Administer and interpret informal (e.g., not norm-referenced) diagnostic surveys and inventories for the purpose of pinpointing a student’s strengths, weaknesses, and instructional needs in the following areas:             <ul style="list-style-type: none"> <li>• Phonological sensitivity (in preschool) and phonemic awareness (in kindergarten and later)</li> <li>• Accuracy and fluency of letter naming, letter formation, alphabet knowledge</li> <li>• Phonics and application of introductory and advanced phonics to spelling and word reading</li> <li>• Oral passage reading fluency and comprehension</li> <li>• Silent passage reading comprehension and recall</li> <li>• Listening comprehension and recall</li> <li>• Morpheme recognition, interpretation, and spelling</li> <li>• Automatic recognition of high-frequency words</li> <li>• Writing performance (punctuation, capitals, syntax, organization, content, spelling, vocabulary)</li> </ul> </li> </ul>
<p>3.7 Know how to read and interpret the most common diagnostic tests used by psychologists, speech-language professionals, and educational evaluators.</p>	<ul style="list-style-type: none"> <li>• Understand and use relevant information from formal assessments administered by licensed examiners, including current versions of these instruments, such as the following:             <ul style="list-style-type: none"> <li>• Clinical Evaluation of Language Fundamentals (CELF)</li> <li>• Comprehensive Test of Phonological Processing (C-TOPP)</li> <li>• Peabody Picture Vocabulary Test (PPVT)</li> <li>• Rapid Automatic Naming Test (RAN)</li> <li>• Test of Word Reading Efficiency (TOWRE)</li> <li>• Woodcock-Johnson Tests of Cognitive Ability and Achievement (WJR)</li> </ul> </li> </ul>
<p>3.8 Integrate, summarize, and communicate (orally and in writing) the meaning of educational assessment data for sharing with students, parents, and other teachers.</p>	<ul style="list-style-type: none"> <li>• Explicitly link information from screenings, diagnostic surveys, progress monitoring, and descriptive data to instructional decisions governing the content, entry point, pace, intensity, student grouping, and methods for literacy intervention.</li> </ul>

<b>STANDARD 4: STRUCTURED LITERACY INSTRUCTION</b>		
<b>A: ESSENTIAL PRINCIPLES AND PRACTICES OF STRUCTURED LITERACY INSTRUCTION</b>		
<b>Substandard</b>	<b>Examples of Coursework Expectations</b>	<b>Examples of Practicum or Fieldwork Expectations</b>
4A.1 Understand/apply in practice the general principles and practices of structured language and literacy teaching, including explicit, systematic, cumulative, teacher-directed instruction.	<ul style="list-style-type: none"> <li>• Identify the principles and lesson elements of explicit and teacher-directed lessons for classroom instruction: explain, model, lead, provide guided practice, assess, review.</li> <li>• Cite the major consensus findings on reading instruction from the National Reading Panel, the National Early Literacy Panel, relevant IES Practice Guides, and other current consensus reports regarding the science of reading.</li> <li>• Identify the principles and lesson elements of explicit and teacher-directed lessons for individual or small-group instruction: explain, model, lead, provide guided practice, assess, review.</li> <li>• Identify the characteristics of systematic teaching that gradually and cumulatively build students' skills from easier to more difficult.</li> <li>• Explain the limits of whole-class instruction, and cite research indicating the merits of small-group instruction for homogeneously grouped students.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan and deliver lessons with a cumulative progression of skills that build on one another.</li> <li>• Provide sufficient practice with connected text. During the early grades, use decodable text aligned with phonics patterns that the student has been taught, and progress to less-controlled text as the student internalizes.</li> <li>• Differentiate instruction based on students' progress in each language and literacy domain. Group accordingly for lessons in each area of language and literacy (e.g., phonemic awareness, decoding, fluency, vocabulary, language comprehension and expression, written language).</li> <li>• Recognize and avoid intervention practices and program characteristics that contrast with or are not aligned with structured literacy practices.</li> </ul>
4A.2 Understand/apply in practice the rationale for multisensory and multimodal language-learning techniques.	<ul style="list-style-type: none"> <li>• State the rationale for multisensory and multimodal techniques, with reference to brain science, cognitive science, and long-standing clinical practice using these methods.</li> <li>• Given a single-modality task, adapt it so that it becomes multisensory.</li> </ul>	<ul style="list-style-type: none"> <li>• Structure learning activities and tasks so they require the simultaneous use of two or three learning modalities (including listening, speaking, moving, touching, reading, and/or writing) to increase engagement and enhance memory.</li> </ul>
4A.3 Understand rationale for/adapt instruction to accommodate individual differences in cognitive, linguistic, sociocultural, and behavioral aspects of learning.	<ul style="list-style-type: none"> <li>• Identify logical adaptations of instruction for students with weaknesses in language, working memory, attention, executive function, or processing speed.</li> <li>• Respond adaptively and constructively to cultural norms and family/community literacy practices affecting student learning.</li> </ul>	<ul style="list-style-type: none"> <li>• Adapt task content, task presentation (amount/complexity of information, mode of presentation) and task requirements (accuracy, speed, length, manner of response) to ensure optimal rate of student success.</li> </ul>

**STANDARD 4: STRUCTURED LITERACY INSTRUCTION**  
**B: PHONOLOGICAL AND PHONEMIC AWARENESS**

Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
<p>4B.1 Understand rationale for/identify, pronounce, classify, and compare all the consonant phonemes and all the vowel phonemes of English.</p>	<ul style="list-style-type: none"> <li>• Discuss why phonemic awareness is necessary for learners of alphabetic writing systems.</li> <li>• Explain the difference between phonological awareness, phonemic awareness, and phonics.</li> <li>• Identify phonemes that are more likely to be confused with each other because they share articulatory features and thus sound similar.</li> <li>• Identify phonemes in words in which the spelling does not transparently represent the phoneme (e.g., <u>dog</u>s, <u>s</u>ure, <u>in</u>k).</li> </ul>	<ul style="list-style-type: none"> <li>• Explicitly teach articulatory features of phonemes and words during PA lessons by such techniques as modeling, using a mirror, describing the speech sound, or using a hand gesture or mouth picture to illustrate the way the speech sound is produced.</li> <li>• Deliberately choose wide (e.g., /m/, /z/) or narrow (e.g., /m/, /n/) phoneme contrasts during instruction, depending on the students' phase of phonemic-awareness development.</li> <li>• For students who may be relying on spelling or letter knowledge to perform a phonemic-awareness task, reinforce attention to sound by using words in phonemic-awareness tasks whose spellings do not transparently represent the phonemes.</li> </ul>
<p>4B.2 Understand/apply in practice considerations for levels of phonological sensitivity.</p>	<ul style="list-style-type: none"> <li>• Explain the general developmental progression of phonological sensitivity and provide examples of each.</li> <li>• Identify, count, and separately pronounce the syllables in multisyllabic words.</li> <li>• Blend and segment onset-rime units in one-syllable words.</li> <li>• Recognize and generate rhymes of words with one or more syllables (e.g., my/pie; mountain/fountain).</li> <li>• Identify the number of phonemes in a spoken word.</li> <li>• Isolate a given phoneme in a spoken word.</li> </ul>	<ul style="list-style-type: none"> <li>• Explicitly and accurately label the linguistic unit of focus in any phonological-sensitivity lesson (syllable, onset-rime, rhyming word).</li> <li>• Choose wide contrasts for beginning rhyme tasks (e.g., fan/seat vs. fan/pin).</li> <li>• Know activities that would help children acquire these early, basic phonological-sensitivity skills (e.g., rhyme recognition and rhyme production, syllable counting, first sound matching, first sound segmentation) in words with a simple onset that has only one phoneme, blending onset and rime.</li> </ul>
<p>4B.3 Understand/apply in practice considerations for phoneme awareness difficulties.</p>	<ul style="list-style-type: none"> <li>• Identify reasons why students may experience difficulty with phonemic-awareness tasks (e.g., coarticulation effect).</li> <li>• Identify common allophonic variations (changes of speech sounds in natural speech), often resulting from coarticulation, that alter how certain phonemes are produced and sound.</li> </ul>	<ul style="list-style-type: none"> <li>• When introducing a phoneme, select word examples that minimize coarticulation effects.</li> <li>• Select key words to illustrate each phoneme that feature nondistorted phonemes (no coarticulation effect).</li> <li>• For phonemic-awareness instruction, clearly focus on the speech sound, not the letter name for spelling a phoneme.</li> </ul>
<p>4B.4 Know/apply in practice consideration for the progression of phonemic-awareness skill development, across age and grade.</p>	<ul style="list-style-type: none"> <li>• Identify the common progression of phonological and phonemic-awareness skills as related to student grade levels.</li> <li>• Plan to link phoneme knowledge with letter (grapheme) knowledge as the student progresses.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan and deliver a scope and sequence of systematic phonological and phonemic-awareness instruction.</li> <li>• Select and implement PA activities that correspond with a student's level of PA development, proceeding to the next level when mastery is attained on the prior phase.</li> <li>• Know a variety of activities for each level of phonological and phonemic awareness.</li> </ul>

4B.5 Know/apply in practice considerations for the general and specific goals of phonemic-awareness instruction.	<ul style="list-style-type: none"> <li>Align PA instruction to reading and spelling goals, for example, making identification of a short vowel in spoken one-syllable words a prerequisite for learning the letter that represents that short vowel in print.</li> </ul>	<ul style="list-style-type: none"> <li>Routinely incorporate phonemic-awareness instruction into reading, spelling, and vocabulary instruction.</li> </ul>
4B.6 Know/apply in practice considerations for the principles of phonemic-awareness instruction: brief, multisensory, conceptual, articulatory, auditory-verbal.	<ul style="list-style-type: none"> <li>Plan to provide brief (5–10 minute), distributed, multisensory phonemic-awareness activities during structured literacy classroom teaching and/or intervention for 15–20 weeks (or more, as needed, to reach curricular goals) in K–1 and for students who need remedial instruction after first grade.</li> </ul>	<ul style="list-style-type: none"> <li>Use tactile and kinesthetic aids, such as blocks, chips, sound boxes, body mapping, finger tapping, and left-to-right hand motions in learning a variety of early, basic, and more advanced PA activities as appropriate.</li> </ul>
4B.7 Know/apply in practice considerations for the utility of print and online resources for obtaining information about languages other than English.	<ul style="list-style-type: none"> <li>Compare a student’s first language phonological system with Standard American English to anticipate which speech sounds in English are not in the student’s native language or dialect and are likely to be challenging for the learner to distinguish and produce.</li> </ul>	<ul style="list-style-type: none"> <li>Explicitly teach the phonemes of English that the EL or nonstandard dialect user may not have in his or her first language.</li> <li>Provide practice distinguishing the new phoneme from similarly articulated phonemes (e.g., for children who speak Spanish, classifying spoken words in English as starting with /sh/ or with /ch/).</li> </ul>

**STANDARD 4: STRUCTURED LITERACY INSTRUCTION**  
**C: PHONICS AND WORD RECOGNITION**

Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
<p>4C.1 Know/apply in practice considerations for the structure of English orthography and the patterns and rules that inform the teaching of single- and multisyllable regular word reading.</p>	<ul style="list-style-type: none"> <li>• Define key terms (e.g., <i>grapheme, phoneme, syllable, suffix</i>), and identify examples of each.</li> <li>• Map regular words by phoneme-grapheme (or grapheme-phoneme) correspondences.</li> <li>• Sort single-syllable regular words according to written syllable type (closed, open, vowel-consonant-e, vowel team, r-controlled, consonant-le).</li> <li>• Divide two-syllable words using the most useful syllable division principles (VC/CV; V/CV; VC/V; VC/CCV; VCC/CV/ consonant-le).</li> <li>• Identify morphemes in common words, including prefixes, inflectional and derivational suffixes, roots, and combining forms.</li> <li>• Explain why the English writing system is, in fact, highly regular and that words that are not fully regular usually differ in one phoneme/grapheme correspondence and preserve morphological information.</li> </ul>	<ul style="list-style-type: none"> <li>• Choose accurate examples for linguistic and orthographic concepts.</li> <li>• Use appropriate and accurate terminology during structured literacy teaching.</li> <li>• Correct student errors in word reading and spelling by providing insight into the language and/or orthographic structures in those words.</li> <li>• Communicate to students that nearly all words can be read using knowledge of speech-to-print relationships and that those with an irregularity usually just differ in one grapheme.</li> </ul>
<p>4C.2 Know/apply in practice considerations for systematically, cumulatively, and explicitly teaching basic decoding and spelling skills.</p>	<ul style="list-style-type: none"> <li>• Identify where any given skill fits into a scope and sequence.</li> <li>• Order decoding concepts from easier to more difficult.</li> </ul>	<ul style="list-style-type: none"> <li>• Teach the system of correspondences in a logical progression (simple to complex).</li> <li>• Use student assessment data to guide the development of a scope and sequence/where to begin instruction.</li> <li>• Use assessment data to develop measurable, observable instructional goals and objectives. (Interventionists and specialists should develop these in line with IEP/504 expectations.)</li> </ul>
<p>4C.3 Know/apply in practice considerations for organizing word-recognition and spelling lessons by following a structured phonics lesson plan.</p>	<ul style="list-style-type: none"> <li>• Use a lesson framework that includes review of a previously learned skill or concept, introduction of a new skill or concept, supported practice, independent practice, and fluent application to meaningful reading and/or writing.</li> <li>• Describe or demonstrate each of the following word work activities and their purpose in relation to the lesson plan: word sorting, quick speed drills, sound (Elkonin) boxes with letters and graphemes, word building, word chaining, writing to dictation.</li> </ul>	<ul style="list-style-type: none"> <li>• Effectively teach all steps in an explicit phonics lesson. (For example, develop phonemic awareness, introduce sound/spelling correspondence, blend and read words, practice word chaining, build automatic word recognition, spell and write selected lesson words, and apply to decodable text reading.)</li> </ul>

<p>4C.4 Know/apply in practice considerations for using multisensory routines to enhance student engagement and memory.</p>	<ul style="list-style-type: none"> <li>Plan to incorporate multisensory learning (e.g., simultaneously employing two or three modalities, including looking, listening, speaking, touching, moving).</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate fluent execution of at least two teacher-led sound-blending techniques cued by the hand or moveable objects (chips, tiles, etc.).</li> <li>Fluently manage and manipulate tangible instructional materials, such as alphabet arcs, sound-symbol cards, and grapheme tiles. Employ signals, such as hand gestures, to cue student responses during phonemic-awareness and reading activities.</li> </ul>
<p>4C.5 Know/apply in practice considerations for adapting instruction for students with weaknesses in working memory, attention, executive function, or processing speed.</p>	<ul style="list-style-type: none"> <li>Identify how instruction can be modified to increase attention, support memory, build fluency, or support strategy use by students.</li> </ul>	<ul style="list-style-type: none"> <li>Adapt the pace, format, content, strategy, or emphasis of instruction to increase student success.</li> </ul>
<p>4C.6 Know/apply in practice considerations for teaching irregular words in small increments using special techniques.</p>	<ul style="list-style-type: none"> <li>Distinguish among high-frequency regular/ irregular words.</li> <li>Define sight words in relation to regular/ irregular words.</li> <li>Place words on a continuum of fully predictable, partially or conditionally pattern-based, and unique (not belonging to a word family).</li> <li>Identify which part of a given word would be unknown to a student on the basis of previous instruction.</li> <li>Identify/describe the three factors to consider when determining how to introduce irregular words within a reading program (word frequency, word similarity, word meaning).</li> </ul>	<ul style="list-style-type: none"> <li>Introduce high-frequency words (both regular and irregular) a few words at a time in tandem with teaching decoding and spelling patterns to support reading of connected text.</li> <li>Provide frequent, distributed practice of high-frequency words until recognized and/or spelled accurately and automatically.</li> <li>Teach truly irregular words through a multisensory approach, emphasizing spelling regularities, word origin, meaning, and/or pronunciation whenever possible to make sense of the word's spelling.</li> </ul>
<p>4C.7 Know/apply in practice considerations for systematically teaching the decoding of multisyllabic words.</p>	<ul style="list-style-type: none"> <li>Teach written syllable types in a logical sequence (e.g., closed, open, vowel-consonant-e, vowel team, consonant-le, r-controlled).</li> <li>Identify the difference between syllable division in natural speech and syllable division in printed words.</li> <li>Clearly distinguish morphemes from syllables while identifying word parts.</li> </ul>	<ul style="list-style-type: none"> <li>Explicitly teach written syllable types and written syllable division principles to support the reading of multisyllable words.</li> <li>Explicitly teach students how to isolate roots and affixes to support multisyllable word reading.</li> <li>Teach the meaning of common affixes and roots.</li> <li>Teach additional strategies for decoding longer words, such as identifying the pronounced vowels, suffixes, and prefixes, and flexing the decoded vowels (i.e., define, definition, definitive) if necessary.</li> </ul>

<p>4C.8 Know/apply in practice considerations for the different types and purposes of texts, with emphasis on the role of decodable texts in teaching beginning readers.</p>	<ul style="list-style-type: none"> <li>• Describe how decodable texts differ from predictable and high-frequency word texts in structure and purpose.</li> <li>• Identify and define word types: wholly decodable words, irregular words (previously taught), and nondecodable words (not wholly decodable or previously taught).</li> <li>• Analyze a decodable text to identify word types (wholly decodable, introduced high-frequency words, nondecodable words), and list words identified by type; calculate percentage of each type of word present in the text.</li> </ul>	<ul style="list-style-type: none"> <li>• Effectively develop or select, and utilize, decodable texts to support developing readers in applying taught phonics concepts in context.</li> <li>• Select instructional-level texts for student reading that correspond to the content and purpose of students' reading skill lessons.</li> <li>• Discern texts that do not support decoding lessons because they contain too many untaught word patterns and high-frequency words.</li> </ul>
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**STANDARD 4: STRUCTURED LITERACY INSTRUCTION**  
**D: AUTOMATIC, FLUENT READING OF TEXT**

<b>Substandard</b>	<b>Examples of Coursework Expectations</b>	<b>Examples of Practicum or Fieldwork Expectations</b>
<p>4D.1 Know/apply in practice considerations for the role of fluent word-level skills in automatic word reading, oral reading fluency, reading comprehension, and motivation to read.</p>	<ul style="list-style-type: none"> <li>• Explain why all component skills for reading development must become accurate and rapid to support more advanced reading skills (e.g., knowledge of letter names/sounds, phonemic awareness, decoding).</li> <li>• Explain how phoneme-grapheme mapping underpins the development of accurate, automatic word recognition.</li> <li>• Explain the interdependence of phonic decoding, word recognition, oral reading fluency, vocabulary, and silent reading comprehension.</li> </ul>	<ul style="list-style-type: none"> <li>• Select and use fluency-building routines and activities for both automatic application of literacy subskills and for text reading, as appropriate.</li> <li>• Identify relevant apps or computer games for building automaticity in word recognition.</li> <li>• Choose instructional materials to build automaticity in subskills/practice reading texts of appropriate difficulty.</li> </ul>
<p>4D.2 Know/apply in practice considerations for varied techniques and methods for building reading fluency.</p>	<ul style="list-style-type: none"> <li>• Describe the role of and appropriate use of independent silent reading, assisted reading, repeated reading, and integrated fluency instruction to promote fluent reading of text.</li> <li>• Describe and role-play fluency-building techniques, including brief speed drills, phrase-cued reading, simultaneous oral reading, alternate oral reading, and repeated readings.</li> <li>• Identify and describe ways that repeated oral reading can be adapted to meet students' individual needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Define and identify examples of text at a student's frustration, instructional, and independent reading levels; recognize how requirements for word accuracy in instructional and independent reading increase by grade.</li> <li>• Provide ample opportunities for student(s) to read connected text daily, with appropriate feedback on decoding errors.</li> <li>• Guide the student to correct his or her reading errors, even when contextually appropriate.</li> <li>• Incorporate fluency-building routines and activities into reading lessons, including brief speed drills, phrase-cued reading, simultaneous oral reading, alternate oral reading, and/or repeated readings.</li> <li>• Adapt the length of tasks, time limits, and scaffolds to enable student success and progress.</li> </ul>

<p>4D.3 Know/apply in practice considerations for text reading fluency as an achievement of normal reading development that can be advanced through informed instruction and progress-monitoring practices.</p>	<ul style="list-style-type: none"> <li>• Identify reading subskills that may be appropriate for brief speed drills (e.g., letter naming, word reading, symbol-sound recall)</li> <li>• Identify and define the components of passage reading fluency (accuracy, rate, prosody).</li> <li>• Interpret CBMs, including oral-reading fluency norms, to develop fluency-building goals with students.</li> </ul>	<ul style="list-style-type: none"> <li>• Select, administer, and graph appropriate curriculum-based measures of relevant reading subskills.</li> <li>• Effectively administer, score, and interpret an oral-reading fluency curriculum-based measure (CBM).</li> <li>• Rate the prosodic quality of a student’s oral reading.</li> <li>• Develop fluency goals and objectives with students and involve students in graphing progress toward those goals.</li> </ul>
<p>4D.4 Know/apply in practice considerations for appropriate uses of assistive technology for students with serious limitations in reading fluency.</p>	<ul style="list-style-type: none"> <li>• Locate and access assistive technology for students with serious limitations in reading fluency.</li> </ul>	<ul style="list-style-type: none"> <li>• Support students in learning to use assistive technology, such as print-to-speech translators, apps, e-books, and audiobooks.</li> </ul>

**STANDARD 4: STRUCTURED LITERACY INSTRUCTION**  
**E. VOCABULARY**

<b>Substandard</b>	<b>Examples of Coursework Expectations</b>	<b>Examples of Practicum or Fieldwork Expectations</b>
<p>4E.1 Know/apply in practice considerations for the role of vocabulary development and vocabulary knowledge in oral and written language comprehension.</p>	<ul style="list-style-type: none"> <li>• Identify and summarize the evidence that knowledge of word meanings is a major factor in language comprehension and expression.</li> <li>• Summarize the findings of the National Reading Panel, the National Early Literacy Panel, and current IES Practice Guides with regard to vocabulary instruction.</li> <li>• Identify and discuss the classroom indicators of students’ vocabulary strengths and weaknesses, such as limited range of word use, confusion about multiple meanings of words, lack of understanding of idioms, slow word retrieval, and poor-quality definitions.</li> </ul>	<ul style="list-style-type: none"> <li>• Habitually include vocabulary-building activities and routines during all instruction.</li> <li>• Recognize when a particular vocabulary-building activity (e.g., morphemic analysis, contextual analysis) is more or less appropriate depending on the word being taught.</li> </ul>
<p>4E.2 Know/apply in practice considerations for the sources of wide differences in students’ vocabularies.</p>	<ul style="list-style-type: none"> <li>• Identify the intrinsic and extrinsic (environmental) factors that are causally related to vocabulary growth, including adult-child interaction patterns; school, socioeconomic, and community contexts; first language other than English; and neurodevelopmental differences in language processing.</li> <li>• Discuss the vocabulary gap in root word knowledge and the implications for vocabulary instruction.</li> </ul>	<ul style="list-style-type: none"> <li>• Include at least an informal assessment of student vocabulary in screening; refer for speech/language assessment when appropriate.</li> <li>• Choose reading materials (read aloud and student reading) that expand vocabulary knowledge.</li> </ul>

<p>4E.3 Know/apply in practice considerations for the role and characteristics of indirect (contextual) methods of vocabulary instruction.</p>	<ul style="list-style-type: none"> <li>• Cite and summarize evidence that supports teacher modeling, classroom conversation, reading aloud, wide independent reading, independent word-learning strategies, and word play in building student vocabulary.</li> </ul>	<ul style="list-style-type: none"> <li>• Promote a rich language environment by scaffolding high-quality language in student dialogue, reading appropriate children’s literature aloud, engaging students in classwide activities involving vocabulary, and modeling academic language use.</li> </ul>
<p>4E.4 Know/apply in practice considerations for the role and characteristics of direct, explicit methods of vocabulary instruction.</p>	<ul style="list-style-type: none"> <li>• Identify how many words can be taught directly over the course of a school year, and develop a rationale for selecting those words, with modifications for ELs.</li> <li>• Identify and describe activities designed to teach meaningful relationships among words.</li> <li>• Link explicit instruction in prefixes, roots, and suffixes to build knowledge of word meanings.</li> <li>• Identify and describe vocabulary-building strategies that are particularly promising for use with ELs.</li> <li>• Explain or identify the difference between basic interpersonal communication skills and academic language proficiency for ELs.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan and deliver lessons that involve evidence-based shared storybook practices, such as Dialogic Reading, that focus on vocabulary and language enrichment.</li> <li>• Know the shortcomings for vocabulary building of activities that require looking up words in a dictionary and writing a sentence with the word.</li> <li>• Prioritize words for explicit, in-depth teaching that are central to the meaning of a text or topic and likely to generalize to other contexts (Beck’s Tier Two words).</li> <li>• Adopt and use a routine for introducing and providing practice with new word meanings.</li> <li>• Teach recognition of familiar morphemes, especially in Latin- and Greek-derived words.</li> <li>• Teach word relationships, such as antonyms, synonyms, associations, multiple meanings, and shades of meaning.</li> <li>• Provide varied practice sufficient for students to use new vocabulary in speaking and writing.</li> <li>• Modify instruction for ELs by using visual and tactile-kinesthetic supports, cognates, and additional spoken rehearsal and by teaching high-frequency words.</li> </ul>

STANDARD 4: STRUCTURED LITERACY INSTRUCTION		
F: LISTENING AND READING COMPREHENSION		
Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
4F.1 Know/apply in practice considerations for factors that contribute to deep comprehension.	<ul style="list-style-type: none"> <li>Articulate a framework for comprehension instruction that addresses all major contributors to this domain, including background knowledge, vocabulary, verbal reasoning ability, sentence processing, knowledge of literary structures and conventions, and skills and strategies for close reading of text.</li> </ul>	<ul style="list-style-type: none"> <li>Plan and deliver comprehensive listening and/or reading comprehension lessons that address background knowledge, interpretation of vocabulary and academic language, and text structure using strategies that fit the text.</li> </ul>
4F.2 Know/apply in practice considerations for instructional routines appropriate for each major genre: informational text, narrative text, and argumentation.	<ul style="list-style-type: none"> <li>Contrast the characteristics of the major text genres, including narrative, informational, and argumentation.</li> <li>Identify text features that characterize each major genre, including logical organization, typical connecting or signal words, and style of language.</li> <li>Match graphic organizers, titles, and topic sentences to various text structures (e.g., description, compare/contrast, reason/evidence, time sequence).</li> </ul>	<ul style="list-style-type: none"> <li>Teach students the major differences between narrative and informational texts.</li> <li>Teach and support students in using graphic organizers matched to specific informational text structures during reading and while planning written responses.</li> <li>Teach students to recognize and interpret signal words associated with specific informational and narrative text structures</li> <li>Explicitly teach story grammar and use it to support comprehension and the retelling of narrative.</li> </ul>
4F.3 Know/apply in practice considerations for the role of sentence comprehension in listening and reading comprehension.	<ul style="list-style-type: none"> <li>Define and distinguish among phrases, dependent clauses, and independent clauses in sentence structure.</li> <li>Know techniques of explicit instruction with sentences, such as sentence elaboration, sentence paraphrase, identifying the function of words within a sentence, and sentence combining.</li> <li>Identify phrase, clause, and sentence structures in any text that may pose comprehension challenges, such as figurative language, double negatives, passive voice, embedded clauses, anaphora, and distance between subject and verb.</li> </ul>	<ul style="list-style-type: none"> <li>Teach students how to construct and deconstruct simple, complex, and compound sentences.</li> <li>Use techniques of explicit sentence manipulation, such as sentence elaboration, sentence paraphrase, identifying the function of words within a sentence, and sentence combining, to build syntactic awareness.</li> <li>Teach students how to identify the basic parts of speech and to relate a word's meaning, spelling, and pronunciation to its grammatical role in a sentence.</li> <li>Anticipate challenging language before text reading and prepare to decipher it with students.</li> <li>During an oral reading of text, detect and provide appropriate feedback to students' confusions in comprehension.</li> </ul>

<p>4F.4 Know/apply in practice considerations for the use of explicit comprehension strategy instruction, as supported by research.</p>	<ul style="list-style-type: none"> <li>• Identify and describe the comprehension strategies recommended by the National Reading Panel and current IES Practice Guides and for whom and in what contexts they are most likely to improve comprehension.</li> <li>• Given a specific text, plan whether and how key strategies might be taught, for example, summarization, question generation, question answering, graphic representation, visualization, guided highlighting, and so forth.</li> </ul>	<ul style="list-style-type: none"> <li>• Select and employ specific strategies before, during, and after text reading, as appropriate to the text and the stated purposes for reading.</li> </ul>
<p>4F.5 Know/apply in practice considerations for the teacher’s role as an active mediator of text comprehension processes.</p>	<ul style="list-style-type: none"> <li>• Understand levels of comprehension processing, including of the surface code (the literal meanings of words), the text base (the meanings underlying the words), and the mental model (the main ideas and details and their connections to each other and to the context).</li> <li>• Given a specific text, identify the cohesive devices (pronoun referents, word substitutions, transition words) that are important for comprehension.</li> <li>• Given a specific text, generate queries designed to help students construct a mental model of the text’s meanings.</li> </ul>	<ul style="list-style-type: none"> <li>• Choose high-quality texts for shared reading or reading aloud.</li> <li>• Before teaching a text, plan questions that are designed to facilitate inference-making and higher-order reasoning; during reading, use questions strategically to help students clarify, interpret, and build meanings as they read.</li> <li>• After reading, ensure that students have understood and can communicate the big ideas or enduring meanings of the text, using a variety of response modes (oral, written, artistic).</li> <li>• Plan appropriate adaptations and accommodations that may include the use of technologies to facilitate note-taking, question answering, completion of graphic organizers, or summarization.</li> </ul>

**STANDARD 4: STRUCTURED LITERACY INSTRUCTION**

**G: WRITTEN EXPRESSION**

<b>Substandard</b>	<b>Examples of Coursework Expectations</b>	<b>Examples of Practicum or Fieldwork Expectations</b>
<p>4G.1 Understand the major skill domains that contribute to written expression.</p>	<ul style="list-style-type: none"> <li>• Compare and contrast the demands of written composition and text comprehension to explain the additional challenges of writing.</li> <li>• Describe the not-so-simple model of writing development.</li> <li>• Recognize and explain the interdependence of transcription skills and written composition and of reading and writing.</li> <li>• Cite the evidence that writing in response to reading helps both reading comprehension and quality of writing.</li> <li>• Know grade and developmental expectations for students’ writing in the following areas: mechanics and conventions of writing, composition, revision, and editing processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Teach both foundational writing skills and composition in writing lessons, devoting grade-appropriate instructional time to each major component.</li> <li>• Use shared and supported composition modes while students are learning the skills of transcription (e.g., students compose orally with teacher transcribing).</li> </ul>

<p>4G.2 Know/apply in practice considerations for research-based principles for teaching letter formation, both manuscript and cursive.</p>	<ul style="list-style-type: none"> <li>• Identify and rehearse techniques for building handwriting control and legibility, including modeling basic strokes, using verbal descriptions of motor patterns, using numbered arrows, and using appropriate writing implements, posture supports, and paper.</li> <li>• Identify and rehearse techniques for building writing fluency.</li> </ul>	<ul style="list-style-type: none"> <li>• Use multisensory techniques (e.g., saying and writing together) to teach letter formation.</li> <li>• Group letters for practice that require similar motor patterns, and explicitly teach those basic pencil strokes.</li> <li>• Model letter formation with visual, motor, and verbal support, lead supervised practice, and provide extended practice with feedback.</li> <li>• Adapt instruction and writing materials for left-handed students.</li> <li>• Build fluency in letter formation, copying, and transcription through frequent, distributed practice and brief timed activities.</li> </ul>
<p>4G.3 Know/apply in practice considerations for research-based principles for teaching written spelling and punctuation.</p>	<ul style="list-style-type: none"> <li>• Recognize and explain the influences of phonological, orthographic, and morphemic knowledge on spelling, so instruction will focus on language structures rather than rote memorization.</li> <li>• Identify students' levels of spelling development and orthographic knowledge according to a developmental framework.</li> <li>• Identify a progression for teaching punctuation that is related to instruction on phrase and sentence structure and sentence types.</li> <li>• Analyze student writing samples and spelling tests to refine instructional targets (e.g., development of phonological awareness, knowledge of spelling rules, awareness of inflectional morphemes).</li> </ul>	<ul style="list-style-type: none"> <li>• Select instructional targets that match students' levels of spelling development and that follow a scope and sequence of spelling concepts.</li> <li>• Explicitly teach spelling concepts (explain concept, lead practice with feedback, support independent practice).</li> <li>• Use or develop practice activities that help students generalize learned words and patterns into writing.</li> <li>• Identify helpful apps and other technology that support practice or that would be appropriate for accommodations and modifications.</li> </ul>
<p>4G.4 Know/apply in practice considerations for the developmental phases of the writing process.</p>	<ul style="list-style-type: none"> <li>• Identify the specific subskills of each phase of the writing process so each can be explicitly taught (e.g., planning involves selecting a format, having ideas, and having a goal; drafting requires transcription skill and text/word generation; reviewing requires facility with word choice, sentence editing, mechanics, audience awareness, and so forth).</li> <li>• Identify research-based instructional practices to support planning, drafting, and revision.</li> </ul>	<ul style="list-style-type: none"> <li>• Devote sufficient instructional time to planning, including definition of the goal and expectations, brainstorming of ideas, and anticipation of text format, length, and style.</li> <li>• Support transcription with written notes, word banks, graphic organizers, and talking.</li> <li>• Support editing and revision with personal or group conferencing, proofreading checklists, and peer-to-peer collaboration.</li> <li>• Build a student writing folder and publish selected works in displays or collections.</li> </ul>

<p>4G.5 Know/apply in practice considerations for the appropriate use of assistive technology in written expression.</p>	<ul style="list-style-type: none"> <li>• Provide examples of specific assistive technology (types of devices/programs) appropriate to students with varying written expression needs (e.g., poor spelling vs. difficulties with organization/composition).</li> <li>• Critically evaluate specific assistive technology devices/programs and their utility for a specific student.</li> </ul>	<ul style="list-style-type: none"> <li>• Select and provide access to keyboarding and word-processing instruction as appropriate.</li> <li>• Implement assistive technology for writing; make adjustments depending on individual students' needs.</li> </ul>
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**STANDARD 5: PROFESSIONAL DISPOSITIONS AND PRACTICES**

5.1 Strive to do no harm, maintain confidentiality, and act in the best interest of struggling readers and readers with dyslexia and other reading disorders.
5.2 Maintain the public trust by providing accurate information about currently accepted and scientifically supported best practices in the field.
5.3 Avoid misrepresentation of the efficacy of educational or other treatments or the proof for or against those treatments.
5.4 Respect objectivity by reporting assessment and treatment results accurately, and truthfully.
5.5 Avoid making unfounded claims of any kind regarding the training, experience, credentials, affiliations, and degrees of those providing services.
5.6 Respect the training requirements of established credentialing and accreditation organizations supported by CERI and IDA.
5.7 Avoid conflicts of interest when possible and acknowledge conflicts of interest when they occur.
5.8 Support just treatment of individuals with dyslexia and related learning difficulties.
5.9 Respect confidentiality of students or clients.
5.10 Respect the intellectual property of others.

## SUPPORTING EVIDENCE AND REFERENCES<sup>1</sup>

### **STANDARD 1: Foundations of Literacy Acquisition**

An extensive research base exists on the abilities that are important in learning to read and write, including how these abilities interact, how they are influenced by experience and instruction, and how the relative importance of various abilities tends to shift across development. Even before formal literacy instruction begins, certain risk indicators, such as poor phonological sensitivity or a history of early language delay, can predict which children are likely to require especially close monitoring and intervention. Moreover, evidence suggests that certain educational practices, such as universal screening, evidence-based general education instruction, and prompt intervention, can prevent or ameliorate many literacy problems. For both general and special educators, knowledge of this research base on literacy development and literacy difficulties forms an essential foundation for the competencies and skills described in subsequent sections of this document.

In addition, familiarity with the systems of language is required to implement Structured Literacy instruction. Formal knowledge about language structures—recognizing, for example, whether words are phonetically regular or irregular; common morphemes in words; common sentence structures in English; and how different types of texts are organized—enables teachers to interpret assessments, present lesson concepts clearly, select appropriate examples of concepts, and provide corrective feedback to students. Teachers’ understanding of language structure is essential to providing effective instruction in writing and reading. 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.

- 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.
- 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.
- Carlisle, J. F., Kelcey, B., & Berebitsky, D. (2013). Teachers’ support of students’ vocabulary learning during literacy instruction in high poverty elementary schools. *American Educational Research Journal*, 50, 1360-1391.
- 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. Retrieved 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.

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<sup>1</sup> This reference list is neither comprehensive nor exhaustive. References are offered as examples of the literature supporting the rationale for and the validity of each standard. Many other sources could be referenced in courses and texts aligned with this document.

- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (in press). *Learning disabilities: From identification to Intervention, 2nd Ed.* New York: Guilford Press.
- Foorman, B., Beyer, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., et al. (2016). *Foundational skills to support reading for understanding in kindergarten through 3<sup>rd</sup> grade* (NCEE 2016-4008). U.S. Department of Education. Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Washington, DC: Government Printing Office.
- 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.
- McCardle, P., & Chhabra, V. (2004). *The voice of evidence in reading research.* Baltimore: Brookes Publishing.
- McCutchen, D., Green, L., Abbott, R. D., & Sanders, E. A. (2009). Further evidence for teacher knowledge: Supporting struggling readers in grades three through five. *Reading and Writing: An Interdisciplinary Journal, 22*, 401-423.
- Moats, L. C. (2010). *Speech to print: Language essentials for teachers, 2nd Ed.* Baltimore: Brookes Publishing.
- Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. *Psychological Bulletin, 137*, 267–296.
- 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.
- Olson, R. K. (2004). SSSR, environment, and genes. *Scientific Studies of Reading, 8*(2), 111–124.
- Seidenberg, M. (2017). *Language at the speed of sight: How we read, why so many can't, and what can be done about it.* New York, NY: Basic Books.
- Snow, C., Griffin, P., & Burns, S. (2006). *Knowledge to support the teaching of reading.* San Francisco: Jossey- Bass.
- 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., & Cheesman, E. (2012). Teachers' knowledge base for implementing response-to-intervention models in reading. *Reading & Writing: An Interdisciplinary Journal, 25*, 1691–1723.
- 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.). (2014). *Handbook of language and literacy: Development and disorders, 2nd Ed.* 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.
- Wolf, M. (2007). *Proust and the squid: The story and science of the reading brain.* New York: HarperCollins.
- Zipoli, R., & Merritt, D. (2016). Risk of reading difficulty among children with a history of speech or language impairment: Implications for student support teams. *Preventing School Failure: Alternative Education for Children and Youth.* doi:10.1080/1045988X.2016.1202180

## STANDARD 2: Knowledge of Diverse Reading Profiles, Including Dyslexia

A well-prepared teacher will expect that students' reading, writing, and language profiles will vary and that a single approach to instruction is unlikely to match the needs of all students. Some students will learn readily and will benefit from more emphasis on centers and independent reading. Some students will have specific problems learning phonemic awareness, phonics, spelling, and decoding, whereas other students may be relatively strong at using phonics but relatively weak in vocabulary, language comprehension, or the text generation aspects of writing. Still others may have a specific and pronounced problem developing automatic recognition of words and may be very slow readers. These subgroups can be supported with small-group instruction delivered under an RTI (MTSS) framework that bolsters their weaker skill areas.

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

- 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.
- Catts, H. W., Adlof, S. M., & Weismer, S. E. (2006). Language deficits in poor comprehenders: A case for the simple view of reading. *Journal of Speech, Language, and Hearing Research, 49*(2), 278–293.
- Catts, H. W., Compton, D. L., Tomblin, J. B., & Bridges, M. S. (2012). Prevalence and nature of late-emerging poor readers. *Journal of Educational Psychology, 104*(2), 166–181.
- Compton, D. L., Fuchs, L. S., Fuchs, D., Lambert, W., & Hamlett, C. (2012). The cognitive and academic profiles of reading and mathematics learning disabilities. *Journal of Learning Disabilities, 45*(1), 79–95.
- Ehri, L. C., Cardoso-Martins, C., & Carroll, J. M. (2014). Developmental variation in reading words. *Science Direct, 35*(5), 1098–1109.
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (in press). *Learning disabilities: From identification to intervention, 2nd Ed.* New York: Guilford Press.
- Hulme, C., & Snowling, M. (2009) *Developmental disorders of language, learning, and cognition.* Oxford, England: Wiley-Blackwell.
- Kieffer, M. J. (2010). Socioeconomic status, English proficiency, and late-emerging reading difficulties. *Educational Researcher, 39*, 484–486.
- Leach, J. M., Scarborough, H. S., & Rescorla, L. (2003). Late-emerging reading disabilities. *Journal of Educational Psychology, 95*, 211–224.
- Lipka, O., Lesaux, N., & Siegel, L. (2006). Retrospective analyses of the reading development of grade 4 students with reading disabilities: Risk status and profiles over 5 years. *Journal of Learning Disabilities, 39*, 364–378.
- 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.
- Shaywitz, S. (2003). *Overcoming dyslexia: A new and complete science-based program for reading problems at any level.* New York: Knopf.
- Spear-Swerling, L. (2015). *The power of RTI and reading profiles: A blueprint for solving reading problems.* Baltimore, MD: Brookes Publishing.
- Washburn, E. K., Joshi, R. M., & Binks-Cantrell, E. S. (2011). Teacher knowledge of basic language concepts and dyslexia. *Dyslexia, 17*, 165–183.

Wolf, M., & Bowers, P. G. (1999). The double-deficit hypothesis for the developmental dyslexias. *Journal of Educational Psychology, 91*, 415–438.

### **STANDARD 3: Assessment**

Teachers' ability to administer and interpret assessments accurately is essential both to the 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 students' 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) and be able to 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; to interpret this information correctly, they require an understanding of basic principles of test construction and concepts such as reliability and validity. They should also 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. In addition, to implement assessments effectively within an RTI (MTSS) framework, educators must understand certain issues involved in screening and progress monitoring large groups of students. These issues include the value of two-stage screening, appropriate selection and interpretation of progress-monitoring assessments, and signs that a student should be referred for comprehensive evaluation for special education (e.g., early language delay or family history of dyslexia, in a student who is not showing a robust response to intervention). 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, most notably in CBMs. General and special educators should know how CBMs differ from other types of curriculum-based assessments (e.g., they are quick-timed probes that correlate well with overall competence in a domain), and they should recognize the features that make CBMs particularly useful in screening and progress monitoring (e.g., they come in multiple equivalent forms and are sensitive to incremental progress).

- Compton, D. L., Fuchs, D., Fuchs, L. S., Bouton, B., Gilbert, J. K., Barquero L. A., & Crouch R. C. (2010). Selecting at-risk first-grade readers for early intervention: Eliminating false positives and exploring the promise of a two-stage gated screening process. *Journal of Educational Psychology, 102*, 327–341.
- 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.
- Farrall, M. L. (2012). *Reading assessment: Linking language, literacy, and cognition*. Hoboken, NJ: John Wiley & Sons.
- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2012). Smart RTI: A next-generation approach to multilevel prevention. *Exceptional Children, 78*, 263–279.
- Fuchs, L. S., & Vaughn, S. (2012). Responsiveness to intervention: A decade later. *Journal of Learning Disabilities, 45*, 195–203.
- 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.

- Hasbrouck, J., & Haager, D. (Eds.). (2007). Monitoring children's progress in academic learning. *Perspectives on Language and Literacy* 33(2).
- 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.
- Hosp, M. K., Hosp, J. L., & Howell, K. W. (2016). *The ABCs of CBM: A practical guide to curriculum-based measurement*. New York, NY: Guilford.
- 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.
- Johnson, E. S., Jenkins, J. R., Petscher, Y., & Catts, H. W. (2009). How can we improve the accuracy of screening instruments? *Learning Disabilities Research & Practice*, 24, 174–185.
- 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.
- Kilpatrick, D. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties*. Hoboken, NJ: Wiley.
- Pennington, B. (2009). *Diagnosing learning disorders* (2nd ed.). New York: Guilford Press.
- Shinn, M. R. (2008). Best practices in using curriculum-based measurement in a problem-solving model. In A. Thomas, & J. Grimes (Eds.), *Best practices in school psychology* (pp. 671–697). Bethesda, MD: National Association of School Psychologists.
- 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.

## **STANDARD 4, Substandard A: Essential Principles and Practices of Structured Literacy Instruction**

Structured Literacy teaching can be contrasted with meaning-emphasis, child-centered, incidental instruction in which foundational skills are generally not emphasized, even for children at the earliest stages of learning to read and write. Structured Literacy involves teaching language concepts in an explicit, systematic, cumulative manner, according to a planned scope and sequence of skill development. Structured Literacy approaches emphasize direct interaction with a teacher who provides clear explanations and modeling of new skills and concepts; prompt, unambiguous, corrective feedback to errors; and application of decoding skills in texts that lend themselves to decoding, rather than texts containing many words that beginners will be unable to decode. In these approaches, spelling instruction is well coordinated with decoding instruction, and higher levels of literacy—such as syntax, paragraph organization, and discourse structure—are also taught systematically. In contrast, most approaches to teaching literacy that are commonly used in schools lack these features. Structured Literacy approaches are especially valuable for students with reading disabilities such as dyslexia; however, many other children can also benefit from these approaches, including ELs and children at risk in reading due to limited experiences with literacy and academic language.

- Archer, A., & Hughes, C. A. (2011). *Explicit instruction: Effective and efficient teaching*. New York, NY: Guilford Press.
- Birsh, J. (Ed.) (2011). *Multisensory teaching of basic language skills, 3rd Ed*. Baltimore: Brookes Publishing.

- Moats, L. C. (2017). Can prevailing approaches to reading instruction accomplish the goals of RTI? *Perspectives on Language and Literacy*, 43, 15–22.
- Moats, L. C., Dakin, K., & Joshi, M. (Eds.) (2012). *Expert perspectives on interventions for reading*. Baltimore, MD: International Dyslexia Association.
- Rivera, M. O., Moughamian, A. C., Lesaux, N. K., & Francis, D. J. (2008). *Language and reading interventions for English language learners and English language learners with disabilities*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.
- Spear-Swerling, L. (in press). Structured literacy and typical literacy practices: Understanding differences to create instructional opportunities. *Teaching Exceptional Children*.

#### **STANDARD 4, Substandard B: Structured Literacy Instruction—Phonological Awareness, Phonological Sensitivity, Phonemic Awareness**

Phonological sensitivity (awareness of rhyme, alliteration, syllables, and larger chunks of words) and phonemic awareness are essential foundations for reading and writing. All children benefit from explicit teaching of consonant and vowel phonemes apart from, but connected to, the letters that represent them. Without early, research-based intervention, children who struggle with speech-sound awareness are likely to have difficulty learning to use phonics for decoding, remembering the pronunciation of words (especially when they sound similar), and spelling. Furthermore, poor phonological awareness is a core weakness in dyslexia. Ample research exists to inform the teaching of phonological awareness, including research on the phonological skills to emphasize in instruction, appropriate sequencing of instruction, methods to help students identify phonemes, such as the use of articulatory cues, and integrating instruction in phonological awareness with instruction in alphabet knowledge. Educators who understand how to teach these foundational skills effectively can prevent or ameliorate many children’s reading problems, including those of students with dyslexia.

- 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.
- Boyer, N., & Ehri, L. C. (2011). Contribution of phonemic segmentation instruction with letters and articulation pictures to word reading and spelling in beginners. *Scientific Studies of Reading*, 15(5), 440–470.
- 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.
- Kilpatrick, D. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties*. Hoboken, NJ: Wiley.
- Moats, L.C. & Tolman, C. A. (2018). *Language essentials for teachers of reading and spelling (LETRS)*, 3rd Ed. Dallas, TX: Voyager Sopris Learning.
- Neuman, S. B., & Dickinson, D. K. (2002). *Handbook of early literacy research*. New York: Guilford 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.

## **STANDARD 4, Substandard C: Structured Literacy Instruction—Phonics and Word Recognition**

The development of accurate word-decoding skills is an essential foundation for reading fluency and reading comprehension in all students. Word decoding is the ability to read unfamiliar words by applying knowledge of sounds for letters, letter patterns (e.g., *sh, igh, ar*), and the alphabetic code. At more advanced stages of word reading, decoding also requires knowledge of syllabication strategies (e.g., dividing between two consonants in a word with a VCCV pattern, such as *lantern*) and the ability to recognize common morphemes in words (e.g., *un-, mis-, -ed, -ing, -able*). These kinds of skills are often a central weakness for students with poor reading, including those with dyslexia. The ability of both general and special educators to provide explicit, systematic, appropriately sequenced instruction in decoding is indispensable to meet the needs of students with dyslexia and to help prevent reading problems in other at-risk children and beginning readers in general. Educators should know that recent, post-NRP evidence favors synthetic, parts-to-whole approaches to decoding over inductive, whole-word approaches (e.g., word families). They should also recognize the importance of students' opportunities to apply their developing decoding skills in reading connected text, including oral reading with feedback from a teacher. Teacher feedback should emphasize attention to the print and application of decoding skills rather than guessing at words based on pictures or sentence context. Finally, teachers should understand the usefulness of multisensory, multimodal techniques in focusing students' attention on printed words, engaging students, and enhancing memory.

- 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.
- Brady, S. (2011). Efficacy of phonics teaching for reading outcomes: Implications from post-NRP research. In S. A. Brady, D. Braze, & C. Fowler (Eds.), *Explaining individual differences in reading: Theory and evidence* (pp. 69–96). New York, NY: Psychology Press.
- 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.
- Carlisle, J. F. (2010). An integrative review of the effects of instruction in morphological awareness on literacy achievement. *Reading Research Quarterly, 45*, 464–487.
- Connor, C. M., Morrison, F. J., & Underwood, P. S. (2007). A second chance in second grade: The independent and cumulative impact of first- and second-grade reading instruction and students' letter-word reading skill growth. *Scientific Studies of Reading, 11*, 199–233.
- 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.
- Daane, M. C., Campbell, J. R., Grigg, W. S., Goodman, M. J., & Oranje, A. (2005). *Fourth-grade students reading aloud: NAEP 2002 Special Study of Oral Reading* (NCES 2006-469). U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office.
- Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. *Scientific Studies of Reading, 18*(1), 5–21. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 153–186). Baltimore: Brookes Publishing.
- Goodwin, A. P., & Ahn, S. (2013). A meta-analysis of morphological interventions in English: Effects on literacy outcomes for school-age children. *Scientific Studies of Reading, 17*, 257–285.

- Grace, K. (2006). *Phonics and spelling through phoneme-grapheme mapping*. Longmont, CO: Sopris West.
- Henry, M. (2010). *Unlocking literacy: Effective decoding and spelling instruction, 2nd ed.* Baltimore: Brookes Publishing.
- 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., Lacerenza, L., DePalma, M., & Frijters, J. C. (2012). Evaluating the efficacy of remediation for struggling readers in high school. *Journal of Learning Disabilities, 45*(2), 151–169.
- 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.
- Moats, L. C. (1998). Teaching decoding. *American Educator, 22*(1&2), 42–49, 95–96.
- 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 Publishing.
- Vadasy, P. F., Sanders, E. A., & Peyton, J. A. (2005). Contributions of reading practice to first-grade supplemental tutoring: How text matters. *Journal of Learning Disabilities, 38*, 364–380.

#### **STANDARD 4, Substandard D: Structured Literacy Instruction—Automatic, Fluent Reading of Text**

Reading fluency is the ability to read text effortlessly, quickly, and accurately. Good reading fluency is also characterized by appropriate prosody (e.g., intonation and phrasing) in oral reading. Fluency develops among typical readers in the primary grades and is important because lack of fluency tends to drain students' reading comprehension and motivation to read; poor fluency also makes it difficult for students to keep up with increasing demands for reading volume in the middle and secondary grades. Problems with reading fluency is a very common symptom of dyslexia and other reading disabilities, and these problems 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, place students in appropriate types and levels of texts for reading instruction, stimulate students' independent reading, and provide systematic fluency interventions for students who require them. Teachers should also recognize when a student's fluency difficulties relate to language comprehension factors rather than to decoding, as when a student decodes individual words accurately and automatically but reads text slowly because he or she is struggling to understand meaning. 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.

- 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 Publishing.

- 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.
- Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator, 22*(1&2), 8–15.
- 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.
- Cutting, L. E., Materek, A., Cole, C., Levine, T., & Mahone, E. M. (2009). Effects of fluency, oral language, and executive function on reading comprehension performance. *Annals of Dyslexia, 59*, 34–54.
- 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., 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.
- 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.
- Hasbrouck, J. E., & Tindal, G. A. (2017). *An Update to Compiled Oral Reading Fluency Norms, Technical Report #1702*. Eugene, OR: Behavioral Research and Teaching, University of Oregon. <http://brt.uoregon.edu>
- 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.
- 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.
- Kuhn, M. (2004/2005). Helping students become accurate, expressive reading: Fluency instruction for small groups. *The Reading Teacher, 58*(4), 338–345.
- Kuhn, M. R., Schwanenflugel, P. J., & Meisinger, E. B. (2010). Aligning theory and assessment of reading fluency: Automaticity, prosody, and definitions of fluency. *Reading Research Quarterly, 45*, 230–251.
- 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.
- 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.
- 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.
- Valencia, S. W., Smith, A. T., Reece, A. M., Li, M., Wixson, K. K., & Newman, H. (2010). Oral reading fluency assessment: Issues of construct, criterion, and consequential validity. *Reading Research Quarterly, 45*, 270–291.

## STANDARD 4, Substandard E: Structured Literacy Instruction—Vocabulary

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 morphology (e.g., word parts, such as common roots and affixes). Teachers should understand the importance of vocabulary to overall reading comprehension, and they should recognize populations of children who are especially likely to be at risk in the area of vocabulary, such as ELs and children with limited exposure to literacy at home. Both general and special educators should know how to develop students' vocabulary knowledge through direct and indirect methods. They should also recognize the importance of a 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, a 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.

- Beck, I. L., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.
- Biemiller, A. (2009). *Words worth teaching: Closing the vocabulary gap*. Columbus, OH: SRA/McGraw Hill.
- Biemiller, A., & Boote, C. (2006). An effective method for building meaning vocabulary in primary grades. *Journal of Educational Psychology, 98*, 44–62.
- Carlisle, J. F., Kelcey, B., & Berebitsky, D. (2013). Teachers' support of students' vocabulary learning during literacy instruction in high poverty elementary schools. *American Educational Research Journal, 50*, 1360–1391.
- Diamond, L., & Gutlohn, L. (2006). *Vocabulary handbook*. Berkeley, CA: Consortium on Reading Excellence.
- Ebbers, S. (2006). *Vocabulary through morphemes*. Longmont, CO: Sopris West.
- Gersten, R., Baker, S. K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007). *Effective literacy and English language instruction for English learners in the elementary grades: A practice guide (NCEE 2007-4011)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Graves, M. (2006). *The vocabulary book: Learning and instruction*. New York: Teachers College Press, Columbia University.
- Hirsch, E. D. (2006). *The knowledge deficit: Closing the shocking education gap for American children*. Boston: Houghton Mifflin.
- 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).
- Loftus, S. M., Coyne, M. D., McCoach, B., Zipoli, R., & Pullen, P. C. (2010). Effects of a supplemental vocabulary intervention on the word knowledge of kindergarten students at risk for language and literacy difficulties. *Learning Disabilities Research & Practice, 25*, 124–136.
- Neuman, S. B., & Wright, T. S. (2013). *All about words: Increasing vocabulary in the Common Core classroom (PreK–2)*. New York, NY: Teachers College Press.
- 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.

- Riedel, B. W. (2007). The relation between DIBELS, reading comprehension, and vocabulary in urban first-grade students. *Reading Research Quarterly*, 42, 546–567.
- 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.

## **STANDARD 4, Substandard F: Structured Literacy Instruction—Listening and Reading Comprehension**

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, comprehension of syntax, and knowledge of text structure. 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 student with poor comprehension 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, and 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. They should also recognize the importance of including oral interventions (and reading interventions) in helping students who have difficulties with comprehension.

- 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.
- 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.
- Caccamise, D., & Snyder, L. (Eds.). (2009). Reading comprehension: Issues and instructional applications. *Perspectives on Language and Literacy*, 35(2).
- 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.
- Cardenas-Hagan, E. (2016). Listening comprehension: Special considerations for English learners. *Perspectives on Language and Literacy*, 42(3), 31–35.
- Carlisle, J. R., & Rice, M. S. (2002). *Improving reading comprehension: Research-based principles and practices*. Baltimore: York Press.
- Clarke, P. J., Snowling, M. J., Truelove, E., & Hulme, C. (2010). Ameliorating children's reading-comprehension difficulties: A randomized controlled trial. *Psychological Science*, 21, 1106–1116.
- Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator*, 22, 8–15.
- 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 Publishing.
- Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices: A Practice Guide* (NCEE #2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc>
- Kintsch, E. (2005). Comprehension theory as a guide for the design of thoughtful questions. *Topics in language disorders*, 25(1), pp. 51–64.
- McKeown, M. G., Beck, I. L., & Blake, R. (2009). Rethinking reading comprehension instruction: A comparison of instruction for strategies and content approaches. *Reading Research Quarterly*, 44, 218–253.
- McMaster, K. L., Fuchs, D., & Fuchs, L. S. (2006). Research on peer-assisted learning strategies: The promise and limitations of peer-mediated instruction. *Reading & Writing Quarterly*, 22, 5–25.
- Nelson, N.W. (2013). Syntax development in the school-age years: Implications for assessment and instruction. *Perspectives on Language and Literacy*, 39, 9–15.
- Oakhill, J., Cain, K., & Elbro, C. (2015). *Understanding and teaching reading comprehension: A handbook*. New York: Routledge.
- Scarborough, H. S. (2005). Developmental relationships between language and reading: Reconciling a beautiful hypothesis with some ugly facts. In H. W. Catts & A. Kamhi (Eds.), *The connections between language and reading disabilities* (pp. 3–24). Mahwah, NJ: Erlbaum.
- Scott, C. M. (2009). A case for the sentence in reading comprehension. *Language, Speech, and Hearing Services in the Schools*, 40(2), 184–191.
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3<sup>rd</sup> 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.
- 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.
- 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.
- 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.

## **STANDARD 4, Substandard G: Structured Literacy Instruction—Written Expression**

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. Teachers should understand how, similar to the relationship between reading fluency and reading comprehension, weaknesses in basic writing skills, such as spelling and handwriting, may drain students' abilities and motivation to write. Also, just as in the case of reading, explicit and systematic teaching of important components of writing as part of general education instruction can help prevent or ameliorate many children's writing difficulties. Effective intervention in written expression depends on pinpointing an individual student's specific weaknesses in different component areas of writing and on teachers' abilities to provide explicit, systematic teaching in each area. For instance, a student whose writing difficulties revolve around basic writing skills, such as spelling, will require a different type of intervention than one who has strong foundational writing skills but struggles with text generation processes, such as clarity and word choice. In addition to using assessments to help target individual students' writing weaknesses, both general and special educators should 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, especially as they advance into the middle and upper grades and the demands for writing escalate. Teachers should also 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.

Berninger, V. W., & Wolf, B. J. (2016). *Dyslexia, dysgraphia, OWL LD, and dyscalculia: Lessons from science and teaching (2nd ed.)*. Baltimore: Brookes Publishing.

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.

Gilbert, J., & Graham, S. (2010). Teaching writing to elementary students in grades 4–6: A national survey. *Elementary School Journal*, 110(4), 494–518.

Graham, S., & Hebert, M. (2010). *Writing to read: Evidence for how writing can improve reading*. New York, NY: Carnegie Corporation, Alliance for Excellent Education.

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

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.

- Hecker, L., & Engstrom, E. U. (2011). Technology that supports literacy instruction and learning. In J. Birsh (Ed.). *Multisensory teaching of basic language skills, (3rd ed.)* (pp. 657–683). Baltimore, MD: Brookes Publishing.
- 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.
- Masterson, J. J., & Apel, K. (2010). Linking characteristics discovered in spelling assessment to intervention goals and methods. *Learning Disabilities Quarterly, 33*(3), 185–198.
- 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.
- Spear-Swerling, L., & Zibulsky, J. (2014). Making time for literacy: Teacher knowledge and time allocation in instructional planning. *Reading and Writing: An Interdisciplinary Journal, 27*(8), 1353–1378.
- Troia, G. (Ed.). (2009) *Instruction and assessment for struggling writers: Evidence-based practices*. New York: Guilford Press.
- Wolf, B. (2011). Teaching handwriting. In J. R. Birsh (Ed.). *Multisensory teaching of basic language skills (3rd ed., pp 179–206)*. Baltimore, MD: Brookes Publishing.