Connecticut State Department of Education Evidence-Based Practice Guide
Supporting Local Education Agencies' (LEA) Use of ESSA Title Funds

Reading

DRAFT

Under ESSA, there are four tiers, or levels, of evidence. Throughout this guide, the level indicator key is used to identify the evidence level at a quick glance.

Tier	Evidence Level	Evidence Descriptor
1	Strong Evidence	Supported by one or more well-designed and well-implemented **randomized control experimental** studies.
2	Moderate Evidence	Supported by one or more well-designed and well-implemented **quasi-experimental** studies.
3	Promising Evidence	Supported by one or more well-designed and well-implemented **correlational** studies.
4	Demonstrates a Rationale	Practices that have a well-defined **logic model** or **theory of action**, are supported by research, and have some effort underway to determine their effectiveness.

Interventions applied under Title I, Section 1003 (School Improvement) are required to have strong, moderate, or promising evidence (Tiers 1-3) to support them. All other programs under Titles I-IV can rely on Tiers 1-4.

Suggested citation: Connecticut State Department of Education. (2018). CSDE and ESSA Evidence-Based Spending Guide.

Systems

The Connecticut State Department of Education adheres to research supporting schoolwide, systemic, multi-tiered approaches to reading instruction/intervention, screening, progress monitoring, and fidelity of implementation.

Evidence-based practice and rationale	Grade band	Evidence level and source
Implement a specific set of core in-school strategies and practices to support reading. *Implementation of a set of specific instructional and classroom practices is effective in closing the reading achievement gap. Strategies include, but are not limited to:* • *direct, explicit instruction in phonics, vocabulary, and fluency in the primary grades;* • *explicit instruction in reading comprehension strategies in the upper grades (e.g., inferencing, questioning, and visualizing);* • *one-on-one tutoring in phonics, especially when provided by teachers; and* • *explicit vocabulary instruction for English learners.*	PreK-3 4-5 6-8 9-12	**Tier 1, Strong** Source: School-based Strategies for Narrowing the Achievement Gap: February 2017.
Structural, and curriculum and instruction strategies to improve middle school education. Key *findings include:* • *establishing shared leadership that entails working with stakeholders;* • *ensuring structures that support students' development of strong connections with peers and adults for personal and academic success;* • *developing challenging and relevant curricula, including access to enrichment and elective courses; and* • *providing common planning time for teachers.*	6-8	**Tier 4, Demonstrates a Rationale** Source: Best Practices for Improving Middle Schools: August 2018.

Evidence-based practice and rationale	Grade band	Evidence level and source
Provide reading interventions (Tier 2). *Students struggling with reading who are provided with interventions in word and pseudo-word reading, passage reading, fluency, and reading comprehension perform better than students who do not receive intervention.* ***Note:*** *This review of research literature assessed the evidence base supporting reading interventions in grades 1-3 to improve reading outcomes for students who may not respond to typical classroom reading instruction.*	1-3	**Tier 1, Strong** Source: Gersten, R., Newman-Gonchar, R. A., Haymond, K. S., & Dimino, J. (2017). What is the evidence base to support reading interventions for improving student outcomes in grades 1–3? (REL 2017–271). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast.
Focus on basic cognitive and linguistic processes, intervention, assessment, and professional development. *To become successful readers, students at risk of reading difficulty and/or reading disability require support in basic cognitive and linguistic processes such as oral language skills and vocabulary, as well as interventions with increased intensity at kindergarten and grade 1. Other practices, such as universal screening, progress monitoring, and professional development in research-based instructional practices improve outcomes for these students.*	PreK-3 4-5	**Tier 1, Strong** Source: Connor, C.M., Alberto, P.A., Compton, D.L., O'Connor, R.E. (2014). Improving Reading Outcomes for Students with or at Risk for Reading Disabilities: A Synthesis of the Contributions from the Institute of Education Sciences Research Centers (NCSER 2014-3000). Washington, DC: National Center for Special Education Research, Institute of Education Sciences, U.S. Department of Education.

Evidence-based practice and rationale	Grade band	Evidence level and source
Implement a comprehensive instructional system with district-level and school-level supports. *Secondary students who are struggling readers require a systemic approach to literacy instruction that will help them build content knowledge while improving their reading skills. Effective elements of the system include:* • *prioritized, critical content instruction for students regardless of literacy levels;* • *embedded reading strategy instruction within and across classes;* • *intensive, accelerated literacy intervention that builds mastery of entry-level literacy skills and provides explicit strategy instruction; and* • *therapeutic interventions that support mastery of language underpinnings related to the curriculum content.*	6-8	**Tier 3, Promising** Source: McPeak, L., Trygg, L. (2007). The Secondary Literacy Instruction and Intervention Guide: Helping School Districts Transform into Systems that Produce Life-Changing Results for All Children**.** Stupski Foundation.
Support English learners' understanding of subject matter (i.e., history, science, literature) using specific practices. *English learners require long-term, specific, explicit instruction in language development and reading skills. Effective practices include:* • *redesign all classes for explicit language development, with a focus on comprehension, vocabulary development, and advanced grammatical structures needed to comprehend and produce academic language; and* • *design lessons around carefully structured language objectives for integrating subject matter content, focusing on content-related reading and writing skills.*	6-8 9-12	**Tier 1, Strong** Source: Effective Interventions for Long-term English Learners (2017). Hanover Research.

Instructional Practice

The Connecticut State Department of Education adheres to research that supports explicit instructional practices in critical literacy skills essential to the development of reading, regardless of reading approach or program.

Evidence-based practice and rationale	Grade band	Evidence level and source
Design and provide specific and systematic phonemic awareness and phonics instruction. *To become successful readers, all young students require:* • *focused and explicit phonemic awareness instruction on one or two skills rather than a combination of three or more;* • *phonemic awareness instruction in small groups rather than individually or in whole classroom settings; and* • *systematic phonics instruction (a series of lessons versus intermittent instruction) to impact children's growth in reading.* **Note:** *The research panel identified these practices for students in grades K-2 only.*	**K-2**	**Tier 1, Strong** Source: Langenberg, D. et al. (1999). National Reading Panel Report. [online] Accessed 6 May 2018.
Develop prekindergarten and kindergarten students' language skills and comprehension in listening and reading. *To become successful readers, students in grades PreK-3 benefit from the following language development practices:* • *active engagement in defining new words;* • *focusing on the meaning of texts during pre-reading;* • *making connections between prior knowledge and texts; and* • *focusing on world knowledge and higher-order thinking.*	**PreK-3**	**Tier 3, Promising** Source: Chiang, H., Walsh, E., Shanahan, T., Gentile, C., Maccarone, A., Waits, T., Carlson, B., Rikoon, S., Rimdzius, T. (2017). An Exploration of Instructional Practices that Foster Language Development and Comprehension: Evidence from Prekindergarten through Grade 3 in Title I schools (NCEE 2017-4024).

Evidence-based practice and rationale	Grade band	Evidence level and source
Support learning outcomes for English learners, minorities, and students from low-income households. *To become successful readers, students in grades K-5 require small-group instruction in phonemic awareness, phonological awareness, high-frequency words, oral reading fluency, reading comprehension, and decoding and analyzing word parts.*	K-5	**Tier 4, Demonstrates a Rationale** Source: Instructional Strategies to Support Underrepresented Students. (2017). Hanover Research.
Use identified effective programs and practices to improve literacy achievement. *Provide explicit instruction in reading comprehension and vocabulary, and establish and implement a specific set of instructional routines.*	6-8	**Tier 2, Moderate** Source: Summary of 20 Years Of Research On The Effectiveness Of Adolescent Literacy Programs And Practices. (2016). Institute of Education Sciences.
Support learning outcomes for English learners. • *to improve learning outcomes, English learners at the intermediate and/or middle school levels require the following instructional practices:* • *formative assessments that measure English language phonological processing, letter knowledge, and word and text reading;* • *intensive small-group interventions for at-risk students in phonological awareness, phonics, reading fluency, vocabulary, and comprehension;* • *explicit, direct instruction;* • *high-quality vocabulary instruction incorporated throughout the school day;* • *use of instructional time to address the meanings of common words, phrases, and expressions not yet learned;* • *essential content words taught in depth; and* • *90 minutes a week of instructional activities in which pairs of students at different ability levels or different English language proficiencies work together on academic tasks in a structured fashion.*	6-8 4-5 6-8 4-5 6-8	**Tier 1, Strong** Source: Denton, C., Wexler, J., Vaughn, S., Bryan, D... (2008). Intervention Provided to Linguistically Diverse Middle School Students with Severe Reading Difficulties. Learning Disabilities Research & Practice, v23 n2 p79-89. **Tier 4, Demonstrates a Rationale** Source: Teaching Academic Content and Literacy to English Learners in Elementary and Middle School (NCEE 2014-4012). **Tier 4, Demonstrates a Rationale** Source: Instructional Strategies to Support Underrepresented Students. (2017). Hanover Research.

Evidence-based practice and rationale	Grade band	Evidence level and source
Support English learners' literacy instruction in grades 6-12. *To improve learning outcomes, English learners in grades 6-12 benefit from the following instructional practices:* • *explicit vocabulary instruction;* • *direct and explicit comprehension strategy instruction; and* • *individualized interventions by trained literacy specialists.*	6-8 9-12	**Tier 1, Strong** Source: Instructional Strategies to Support Underrepresented Students. (2017). Hanover Research.

Provide supplementary academic supports for students with a history of low academic achievement in middle school.
 	
To accelerate skill development, provide primary and secondary instructional interventions that target essential areas of development.
 	
• *Provide Tier I interventions during core instruction by integrating vocabulary and comprehension practices.*
 	
• *In addition to Tier I interventions during core instruction, provide Tier II interventions in:*
 	
  - *word recognition;*
 	
  - *vocabulary*
 	
  - *fluency; and*
 	
  - *comprehension.*
	6-8	**Tier 1, Strong**
		
		Source: Response to Intervention for Middle School Students With Reading Difficulties: Effects of a Primary and Secondary Intervention. (2010). National Institutes of Health.

Evidence-based practice and rationale	Grade band	Evidence level and source
Use research-based practices to improve literacy outcomes for Black males. *A review of scholarship related to Black males revealed essential practices:* • *use meaningful texts that reflect and respond to students' social, cultural, economic, and racialized experiences in the world;* • *implement critical literacy approaches (e.g., disrupting the commonplace, considering multiple viewpoints);* • *provide choice during reading instruction that includes access to many different text choices and genres;* • *support the development of background knowledge and/or schemata related to particular texts;* • *design learning experiences that draw from and affirm the cultural identities of students;* • *emphasize phonological awareness instruction, including in upper elementary; and* • *incorporate alternative mediums into reading instruction.*	PreK-12	**Tier 4, Demonstrates a Rationale** Source: Identifying Promising Literacy Practices for Black Males in P-12 Classrooms: An Integrative Review. (2020). Journal of Language & Literacy Education
Develop early literacy skills in K-3 students who lag behind their peers. *Students in grades K-3 who are reading below grade level require a specific set of practices to improve reading outcomes. Practices include:* • *dedicated time each day for explicitly guiding students' reading activities; and* • *dedicated time each day for targeted and purposeful instruction in one or more of the core elements of literacy foundations.*	K-3	**Tier 2, Moderate** Source: Early Skills and Predictors of Academic Success. (2016). Hanover Research.

Evidence-based practice and rationale	Grade band	Evidence level and source
Target language skills in prekindergarten and kindergarten. *Early vocabulary development is a critical precursor to literacy achievement. Young students in PreK and Kindergarten benefit from the following practices:* • *building vocabulary;* • *support in developing syntax; and* • *building discourse abilities.* ***Note:*** *This research provides evidence for grades Pre K and Kindergarten in high poverty schools.*	PreK-K	**Tier 2, Moderate** Source: Hemphill, L., Tivnan, T. (2008). The Importance of Early Vocabulary for Literacy Achievement in High-Poverty Schools. Journal of Education for Students Placed at Risk (JESPAR). DOI: 10.1080/10824660802427710
Provide reading instruction for special education adolescent readers. *Adolescent readers who struggle with reading and/or receive special education services benefit from a specific set of instructional practices, including word study, fluency, and vocabulary building, and reading comprehension strategies.*	4-5 6-8	**Tier 1, Strong** Source: Scammacca, N., Roberts, G., Vaughn. S., Edmonds, M., Wexler, J., Reutebuch, C. K., & Torgesen, J. K. (2007), Interventions for adolescent struggling readers: A meta-analysis with implications for practice. Portsmouth, NH: RMC Research Corporation, Center on Instruction.
Use SMART designs to develop effective adaptive interventions. *Adaptive interventions guide the efforts of teachers and other education practitioners to deliver individualized interventions. An adaptive intervention allows practitioners to modify an intervention based on a sequence of decision rules to meet the needs of the student.*		**Tier 4, Demonstrates a Rationale** Source: An Introduction to Adaptive Interventions and SMART Designs in Education. (2019). Institute of Education Sciences. Intervention Adaptation (National Center on Intensive Intervention at American Institutes for Research.

Professional Learning

The Connecticut State Department of Education supports evidence-based models of teacher professional learning that increase teachers' expertise, thereby ensuring every student is taught by a highly effective teacher.

Evidence-based practice and rationale	Grade band	Evidence level and source
Instructional coaching is an effective model of school-based professional development. *The effects of instructional coaching are not thought to be immediate but transform pedagogy over time. (Grades K-6)*	K-6	T**ier 2, Moderate** Source: Teemant, A. (2014). A Mixed-Methods Investigation of Instructional Coaching for Teachers of Diverse Learners. Urban Education, v49(5), pp. 574-604. DOI: 10.1177/0042085913481362.
Provide mentors for novice teachers. *Reading achievement is higher among students taught by teachers with one to three years of experience who are mentored by retired teachers. (Grades 1-5)*	1-5	**Tier 2, Moderate** Source: DeCesare, D., McClelland, A., & Randel, B. (2017). Impacts of the Retired Mentors for New Teachers program (REL 2017–225). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central.
Create an environment that supports in-school collaboration time. *Provide opportunities for teachers to collaborate in a manner that is well planned, provide opportunities for hands-on experiences, encourage teachers to purposefully and constructively direct their professional growth, and contribute to the growth of their colleagues. (Grades K-12)*	K-3 4-5 6-8 9-12	**Tier 4, Demonstrates a Rationale** Source: Teachers Know Best: Teachers' Views on Professional Development. (2014). Bill & Melinda Gates Foundation.
Provide opportunities for effective teacher learning. *Professional learning should be continuous and job-embedded, use a variety of data sources to plan and assess the professional learning, and include teachers in decision-making about their own professional learning. (Grades K-12)*	K-3 4-5 6-8 9-12	**Tier 4, Demonstrates a Rationale** Source: The State of Teacher Professional Learning: Results from a Nationwide Survey. (2016).

Extended Learning

The Connecticut State Department of Education supports evidenced-based models of extended learning that combat the documented "summer slide" and support cognitive skills, especially reading. The Department supports school-coordinated learning outside of the traditional school or day.

Evidence-based practice and rationale	Grade band	Evidence level and source
Implement strategies that support parents and families in promoting reading. *The collective practices include create literacy-friendly home environments for conducting ongoing and engaging conversations with their children; set and convey high expectations for children's learning; make reading enjoyable; use parents' home language.*	PreK-3	**Tier 4, Demonstrates a Rationale** Source: Improving Literacy Brief for Parents and Families.
Provide extended learning, including summer, enrichment, acceleration, and transition programs. *Elements of effective programming include structured and engaging learning opportunities that are linked to standards; experienced, trained teachers; orientation activities; a focus on strengthening students' connection to school. (Grades K-12)*	K-3 4-5 6-8 9-12	**Tier 4, Demonstrates a Rationale** Source: Best Practices for Comprehensive Summer School Programs. (2015). Hanover Research.
Use formal and informal assessment data to inform academic instruction. *Identify and use assessments that gather the appropriate information for determining and/or adapting instruction. (Grades K-8)*	K-3 4-5 6-8	**Tier 4, Demonstrates a Rationale** Source: Structuring Out-of-School Time to Improve Academic Achievement. (NCEE 2009-012).
Use one-on-one tutoring if possible; otherwise, break students into small groups. *Support summer learning by providing individualized instruction based on students' academic needs and conduct assessments of progress. (Grades K-8)*	K-3 4-5 6-8	**Tier 4, Demonstrates a Rationale** Source: Structuring Out-of-School Time to Improve Academic Achievement. (NCEE 2009-012).

Evidence-based practice and rationale	Grade band	Evidence level and source
Provide professional development and ongoing instructional support to all instructors. *Use experienced teachers to deliver instruction, provide ongoing coaching for novice teachers assigned to deliver instruction, and monitor the quality of instruction to identify additional professional learning needs of teachers. (Grades K-8*)	K-3 4-5 6-8	**Tier 4, Demonstrates a Rationale** Source: Structuring Out-of-School Time to Improve Academic Achievement. (NCEE 2009-012).