

Methodology for the review of state reading licensure tests

NCTQ analyzed all reading licensure tests currently in use for elementary teachers. This analysis, grounded in scientifically based reading research,¹ determines whether these tests adequately address the five core components of reading: phonemic awareness (coding for this component also incorporates other topics under phonological awareness), phonics, fluency, vocabulary, and comprehension. Based on the reading research, NCTQ's expert analysts developed a list of topics that reading licensure tests should address within each component. Then analysts reviewed licensure test materials to look for evidence that the test addresses topics related to the content of the component (e.g., for vocabulary, this includes academic vocabulary, morphology, and other topics), its relationship to other aspects of reading, and instruction on that component (e.g., using context clues, word origins and histories). The full set of topics are identified below.

We also examined whether these tests devote undue attention to content contrary to research-based practices (e.g., three-cueing), and whether these tests combine reading with other subjects. Using these criteria related to component coverage, contrary content, and combining reading with other subjects, NCTQ determined whether tests were strong, acceptable, weak, or unacceptable.

Analysts: The analysts for this work are all experts in reading, with experience working in the elementary grades and additional training in reading instruction. Several of these analysts also participated in analyzing NCTQ's *Teacher Prep Review*.

Data sources: Analysts used official practice tests made available (for free or for purchase) by the state or the testing company, and the official study guide or related information about the content of the tests. Analysts did not use materials developed by third-party vendors (e.g., test-prep or tutoring companies).

Coding process: Analysts reviewed all available materials and gave the assessment credit for any topic that appeared across any data source. For example, if "onset and rime" is mentioned in the study guide but not the sample test, the assessment gets credit for that topic, and the same is true if the topic is mentioned in the sample test but not the study guide.

Component-level scores

(Each component—e.g., *phonics*—receives a rating of “adequate” or “inadequate”)

1. The total number of topics within a component is calculated by combining all “content” and “instruction” topics that the test addresses. For example, *fluency* includes six topics under “content” and ten topics under “instruction” (not counting “other”); the total number of topics the test addresses from these two categories is added together. These topics are identified below.
 - a. This sum of topics does not include “relationship to reading” or “other (specify).”
 - b. Analysts also identified several topics (see below) that rarely occur in licensure tests. NCTQ’s analysis reports on whether each test addresses these topics but does not include them in scoring (e.g., reference to “44 phonemes” under phonemic awareness).
2. To adequately address a component, the test must address 50% or more of topics within a component (combining across “content” and “instruction” topics).
 - a. Example: For *fluency*, Assessment A covers 11 topics (across “content” and “instruction”) out of 15 possible topics; it addresses 50% or more of the topics in phonemic awareness, so it would be deemed “adequate” in fluency.

Overall test score

(Each test receives a rating of “strong,” “acceptable,” “weak,” or “unacceptable”)

1. A test is strong if it:
 - a. Meets all criteria for acceptable test (see below).
 - b. Meets an average of at least 75% of topics from each component.
 - c. Addresses both English language learners and struggling readers.
 - d. Addresses either speakers of language varieties other than mainstream English OR advanced readers, or both.
2. A test is acceptable if it:
 - a. Adequately addresses all five components (see component-level scoring, above)
 - b. Includes three or fewer “contrary practices.”
 - c. Does not combine reading with other subjects other than ELA, communication arts, or writing.
 - i. For example, if a test or subtest includes reading, ELA, and mathematics, it can be rated no higher than “weak.”
 - ii. If a test has one subtest devoted to ELA and reading, and a separate subtest addressing other subjects, the test can earn an “acceptable” rating, assuming it meets the other criteria.

3. A test is weak if it meets any of the following criteria:
 - a. Earns an “inadequate” score in one or more components.
 - b. Combines reading in a test or subtest with other topics beyond ELA (e.g., social studies).
 - c. Includes four or more contrary practices (without clearly identifying that these are undesirable teaching practices).

4. A test is unacceptable if it:
 - a. Has no coverage of one or more components (addresses 0% of topics under “content” and “instruction”).
 - b. Is weak (covering four or fewer components) and includes four or more contrary practices.

Components and topics included in analysis

Phonemic Awareness (including Phonological Awareness)

Phonemic/Phonological Awareness Content	Phonemic/Phonological Awareness' Connection to Other Aspects of Reading	Phonemic/Phonological Awareness Instructional Delivery/Strategies
Phonological awareness (as an umbrella term) Rhyme Onset and rime (without the support of print); may also see body-coda (Bruce Murray) Phonemic awareness (as an umbrella term) Phonemes/sounds 44 phonemes (or if it says linguistics and 44 phonemes) <i>NOTE: This topic is analyzed but does not factor into an assessment's scores because it was rarely evident.</i> Accurately differentiates between	Relationship between phonological/phonemic awareness and other aspects of reading	Explicit instruction Systematic instruction Assessment of phonological/phonemic awareness Phonological/phonemic awareness strategies may include: Phoneme proficiency Blending and segmenting phonemes Manipulating (deleting, adding, substituting) phonemes (may include Elkonin sound boxes) Other (specify)

phonemic and phonological awareness		
-------------------------------------	--	--

Phonics

Phonics Content	Phonics Connection to Other Aspects of Reading	Phonics Instructional Delivery/Strategies
<p>Phonics (as an umbrella term)</p> <p>Sound-symbol relationships; sound-spelling;</p> <p>graphophonemic/ graphophonetic relationships</p> <p>Decoding/re-coding</p> <p>Encoding/ spelling/ orthographic chunk</p> <p>Orthographic mapping (understanding what's happening in your brain)</p> <p><i>NOTE: This topic is analyzed but does not factor into an assessment's scores because it was rarely evident.</i></p> <p>Syllable types, patterns, multisyllabic word instruction</p> <p>Structural analysis and morphology if in service of decoding</p> <p>Irregular or regular high-frequency word decoding</p> <p>Ehri's phases</p> <p>Developmental spelling stages</p>	<p>Relationship between phonics/word recognition and other aspects of reading</p>	<p>Explicit instruction</p> <p>Systematic instruction</p> <p>Assessment of phonics (includes spelling assessment)</p> <p>Phonics strategies may include:</p> <p>Blending/segmenting phonemes and graphemes when decoding</p> <p>Structural analysis and morphology if in service of decoding</p> <p>Decodable texts</p> <p>Irregular or regular high-frequency word recognition</p> <p>Other (specify)</p>

Automaticity with word recognition		
------------------------------------	--	--

Fluency

Fluency Content	Fluency's Connection to Other Aspects of Reading	Fluency Instructional Delivery/Strategies
Fluency (as an umbrella term) Rate Accuracy Prosody Oral reading fluency Automaticity with words	Relationship between fluency and other aspects of reading	Explicit instruction Systematic instruction Assessment of fluency Fluency strategies may include: Repeated readings Reader's theater Partner reading Oral reading practice Modeling fluent reading w/ read-alouds Choral reading, echo reading, tape-assisted reading <i>Note: These are captured separately in analysis but are combined for the purpose of scoring</i> Chunking Other (specify)

Vocabulary

Vocabulary Content	Vocabulary's Connection to Other Aspects of Reading	Vocabulary Instructional Delivery/Strategies
Vocabulary (as an umbrella term) Tiered levels of words (Beck and McKeown) Oral language development	Relationship between vocabulary and other aspects of reading	Explicit vocabulary instruction (direct) Incidental vocabulary instruction (indirect) Vocabulary selection Assessment of vocabulary

<p>Academic language or vocabulary, domain or discipline-specific vocabulary</p> <p>Morphology or structural analysis: prefix, suffix, root</p> <p>Matthew effect <i>NOTE: This topic is analyzed but does not factor into an assessment's scores because it was rarely evident.</i></p>		<p>Word learning strategies may include:</p> <ul style="list-style-type: none"> Word study and word meanings Context clues Word/semantic mapping Word origins and histories Oral/aural vocabulary instruction Vocabulary repetition Vocabulary in various contexts Other (specify)
--	--	--

Comprehension

Comprehension Content	Comprehension's Connection to Other Aspects of Reading	Comprehension Instructional Delivery/Strategies
<p>Comprehension (as an umbrella term)</p> <p>Types of comprehension (literal, inferential, evaluative)</p> <p>Literary and informational text</p> <p>Background knowledge as an essential element of comprehension</p> <p>Listening vs. reading comprehension</p>	<p>Relationship between comprehension and other aspects of reading</p>	<p>Explicit instruction</p> <p>Use of complex text</p> <p>Assessment of comprehension</p> <p>Comprehension monitoring and strategies may include:</p> <ul style="list-style-type: none"> Reciprocal teaching <p><i>NOTE: This topic is analyzed but does not factor into an assessment's scores because it was rarely evident.</i></p> <ul style="list-style-type: none"> Asking/answering questions Text-based discussions Making/checking predictions

		Summarizing, retell, main idea Think-alouds, modeling metacognition Text structure/language structure as an aid to comprehension (includes graphic organizers) Close or repeated reading Other (specify)
--	--	--

Student populations addressed

A test's attention to these groups of students only factors into scoring for tests identified as "strong."

- Struggling readers
- English language learners/Multilingual learners
- Speakers of English language varieties other than mainstream English (e.g., AAVE, Cajun English)
- Advanced readers

Content contrary to research-based practices

Assessments that include four or more of these in a way that suggests they are effective practices are downgraded from "acceptable" to "weak" tests.

- Running records
- Guided reading
- DRA, IRI, and QRI assessments
- Balanced literacy
- Miscue analysis
- Three-cueing
- Reader's workshop
- Leveled text
- Embedded/implicit phonics

¹ For an explanation of scientifically based reading research, see the Reading Foundations Technical Report: https://www.nctq.org/dmsView/Teacher_Prep_Review_Reading_Foundations_Technical_Report.