

EPI Study Guide for Instructional Reading Pre-test: Reading Competency One.

Core Language and Literacy Skills

A core, or essential, set of skills have been identified by research as those skills young children must have in order to become successful readers (Snow et al., 1998). To learn to read and write easily, children need to develop experience with these skills within a print-rich environment which is also an information intensive environment. As young children experience these foundational aspects of literacy, they begin to understand how print and language work together. The core language and literacy skills fall into six major categories: oral language, phonemic awareness, phonics, fluency, vocabulary, and comprehension. **Oral language is the system** through which we use **spoken words** to express knowledge, ideas, and feelings.

As you study and learn about the various reading components, it is important to remember that these components (oral language, phonemic awareness, phonics, fluency, vocabulary, and comprehension) work simultaneously and in an integrated fashion. They are not isolated systems working independently of each other. A complex number of connections are engaged as the reader interacts with the text to create meaning, gather information, make evaluations and judgements, and develop meaningful connections to the reader's personal experiences and feelings. Reading is a miraculous, complex process!

There are **four systems of spoken language** (linguistics). These systems of spoken language allow speakers to communicate ideas to one another and include pragmatics, semantics, syntax, and phonology. **Pragmatics** is the spoken language system which is used socially and culturally in order to accomplish daily and routine tasks: using manners (please and thank you) and making requests (May I have a cookie?). **Semantics** is the spoken language system that deals with meanings: vocabulary knowledge, knowledge of word parts, and the knowledge of how words work together. **Syntax** is the spoken language system that has to do with sentence structure. In English, the syntax mostly refers to word order in sentences such as subject-verb-object. **Phonology** is the spoken language system which has to do with sounds also referred to as phonemes. These systems act simultaneously to allow speakers to communicate with each other (McGee & Richgels, 2012).

Oral Language

Oral language is the ability to speak and listen with understanding. Using language to communicate includes grammar, word meanings, and listening comprehension. In order to comprehend oral language, children need to pay attention and listen with purpose. They need to quickly recognize words they hear and connect new information with what they already know. Oral language comprehension is important because it provides the language foundation for learning to read and write. Oral language also enhances and supports the development of phonics, fluency, vocabulary, and comprehension. Likewise, oral language and writing have a relationship that support and enhance a students' abilities. In other words, the use of oral language facilitates writing and writing facilitates and enhances the development of oral language.

Shared book reading, singing songs, finger plays, storytelling, and dramatic play are a few of the ways to help children explore, learn, and use oral language in the pre-school years. Oral language is a complex

system where sounds are connected to making meaning. It is important to note here that beginning readers have a difficult time understanding words that are not part of their oral vocabulary. Assessments for younger children and English Language Learners in oral language are usually informal and conducted through conversations with young learners. The teacher then records his/her systematic observations using anecdotal notes or a checklist. Formal assessments are not generally used for oral language or young children (McGee & Richgels, 2012).

Phonological Awareness

Phonological awareness involves *hearing the sounds of language* apart from its meaning, which is difficult for most children because they must be consciously aware of the structure of language in order to manipulate sounds, rather than simply using language to communicate. They need to learn how to listen with purpose for the number of words in sentences, (I / ate / soup / for / lunch) – 5 words, the number of syllables in words (com-pu-ter) – 3 syllables, and the number of individual sounds or phonemes in words (d/o/g) – 3 phonemes. The **Phonological Continuum** is a series of steps in which the students begin by *identifying the larger components* which include words, syllables, and rhyming. As the continuum *progresses*, the student works to complete more complex tasks of phonemic awareness and *manipulating smaller components of words* by isolating, identifying, and blending sounds. The most difficult phoneme manipulations require the student to add, delete, and substitute sounds in order to segment and create new words. Phonemic awareness should always be taught in conjunction with alphabet letters. The ability to link letters (**graphemes**) with their sounds (**phonemes**) is known as the **alphabetic principle**. Phonological awareness is important because it is a strong indicator of future reading success and an essential skill for phonics and spelling, and it must be taught. Spoken sounds are systematically related to specific letter or letter combinations (the alphabetic principle). Because of this interrelationship between letters and sounds, and conversely, sounds and letters, researchers and experts in the reading acquisition process emphasize: writing supports phonological awareness development. In fact, writing supports most facets of reading/literacy development. Alphabetic languages have a systematic method for creating print. (Vacca & Vacca, 2012).

When working with young children, it's important to use read-aloud books, nursery rhymes, riddles, songs, and poems that play with language and manipulate sounds. For example, text with rhymes will help children notice the ends of words. Once children are aware of word endings, it makes sense to teach them alliteration using text like *Silly Sally* (Wood, 1992) to teach them that beginnings of words also can sound alike. Clapping, marching to the beat of a song, and using hand motions can all be used to teach phonological awareness.

Phonological awareness includes phonemic awareness, phonemes, working with words rhyming, and working with syllables in spoken words. Additionally, working with onsets and rimes (yes the spelling is correct) is part of this category. Onsets and rimes are parts of spoken language that are smaller than syllables, but larger than phonemes. An onset is the initial consonant(s) sound of a syllable (the onset of *bag* is b-; of *swim* is sw-). A rime is the part of the syllable that contains the vowel and all that follows it (the rime of *bag* is -ag; of *swim* is -im.) (Put Reading First, National Institute for Literacy.)

Phonemic Awareness: Phonemic awareness is under the umbrella of Phonological Awareness and is one of the essential components of reading. According to the National Institute for Literacy, phonemic awareness is the ability to hear, identify, and manipulate the individual sounds in spoken words. Before children learn to read print, they need to become aware of how the sounds in words work. They must

understand that words are made up of speech sounds, or phonemes. The phoneme is the smallest part of sound in a spoken word that makes the difference in the word's meaning. (A letter between the slash marks shows the phoneme, or sound, that the letter represents and not the name of the letter. For example, /m/, /a/, /p/ represents 'map'. On the other hand, a grapheme is the smallest part of written language that represents a phoneme in the spelling of a word. For example, the written letter Z is a grapheme. It is important to note that digraphs have two letters that represent one sound such as the ph that represents the /f/ sound. Vowel digraphs have two vowels, but the lead vowel carries the sound (lead had ea and the long /e/ sound).

Phonemic Awareness can be taught and learned. Effective phonemic awareness instruction teaches children to hear, identify, and manipulate sounds in spoken language using the following:

Phoneme isolation: children recognize individual sounds in words. For example, the first sound in dog is /d/.

Phoneme identity: children recognize the same sound in different words, such as six, sun, and sat. The first sound /s/ is the same.

Phoneme categorization: children recognize or identify the word in a set that doesn't belong or has the odd sound. For example, which word doesn't sound like the others – dot, big, doll? (big)

Phoneme blending: A more difficult task, children blend a series of orally presented sounds to form a word. For example, blend /k/, /a/, /t/. The child should say 'cat'.

Phoneme segmentation: children isolate and identify sounds from the beginning or end of a word. For example, what sound do you hear at the beginning of the word 'pig'? The child says /p/. Sounds in the middle of a word can also be segmented and counted. For example, what are the sounds in 'pig'? How many sounds do you hear? The child says, /p/, /i/, /g/, 3 sounds. (Note: the middle sound is the short i.)

Phoneme deletion: children remove a sound from an oral word. Remove the /k/ sound from 'cat', what word/phoneme do you have left? (at)

Phoneme addition: children add a sound to an oral word. Add the /t/ to rain, what word do you have now? (train)

Phoneme substitution: children remove one sound and replace it with another. For example, take the word 'cat', take away the beginning sound /k/ and replace it with the new sound /h/, what word do you have now? (hat) (Vacca & Vacca, 2012).

At the beginning of the school year, kindergarten readiness assessments are completed. Teachers might use published assessments such as the *easyCBM*, *DIBELS Next*, *AIMSweb Test of Early Literacy*, etc. in order to diagnose problems with sound manipulations and determine appropriate levels for differentiated phonemic awareness instruction at various levels of the phonological continuum for sound manipulations (Honig, Diamond, & Gutlohn, 2018).

Dialect Influence on Pronunciation

Any time you have people who come from a variety of geographic locations, cultures, and home experiences, you will encounter differences in pronunciation of particular phonemes. For example, some

people say *aunt* as ‘*ant*’ while others say ‘*ahnt*’. Some people say *potato* with a long *a*, but others say *potato* using a short *a* sound. Some people say *either* by using a long *i* for the *ei* digraph, others say *either* by using a long *e* sound for *ei*. These are examples of phonemes which are dialect-sensitive. English Language Learners whose native language is Spanish have some challenges to overcome as they navigate the different sounds. These sound differences can affect the ELL’s pronunciation of English letter-sounds that are confused with different Spanish sounds associated with the same letter(s). In some cases ELLs will have difficulty with sound production for letter-sounds which do not exist in the Spanish language. Teachers need to be aware of and consider dialects when assessing students in phonemic awareness and providing instruction in phonemes that are altered due to cultural, native language, and geographical influences (Honig, Diamond, & Gutlohn, 2018).

Concepts of Print

Concepts of print and print knowledge/awareness refer to the ability to recognize print and understand that it works in specific ways. It is the knowledge of reading terms, rules, and procedures such as the distinction between words, pictures, and letters. It is also the understanding that the direction of print goes from left to right and top to bottom in a book. It is the knowledge the title is found on the cover of the book. Concepts of print are important because it is a key concept in the learn-to-read process and is a marker of literacy experience. Not all students come to school with this knowledge because not all children have pre-school and parent-led experiences with reading. Collecting and labeling pictures, writing captions (text) under children’s drawings, and having children identify environmental words are ways to teach concepts of print. Therefore, a print-rich and information-rich environment is important (McGee & Richgels, 2012).

Phonics

Phonics instruction teaches children the relationship between the letters (graphemes) of written language and the individual sounds (phonemes) of spoken language. It teaches students to use these letter/sound relationships to read and write words. This is sometimes referred to as letter-sound relationships, letter-sound correspondences, and sound-symbol relationships. Regardless of the label, the goal of phonics instruction is to help children learn and use the **alphabetic principle** – *the understanding that there are systematic and predictable relationships between written letters and spoken sounds*. Knowing these relationships will help children recognize familiar words accurately and automatically, and ‘decode’ new words. In the English language, phonics carries the major job of mapping phonological units (words, syllables, onset-rimes, and phonemes) onto orthographic units (words, rimes, and letters). Within the study of phonology is the pronunciation of consonant and vowel sounds. A consonant can be a blend of two letters (fl, gr, sp, mp), digraphs (th, sh, wh) and silent as in sign and the g is silent. Consonant phonemes are identified by the place of articulation, the manner of articulation, and whether the sound is voiced or unvoiced. Teachers usually use the classification of consonant phonemes as continuous sounds or as stop sounds. Continuous sounds are those sounds that can be produced for several seconds without distortion; for example, /f/, /l/, /m/, /n/, /r/, /s/, /v/, /w/, /y/, /z/. Stop sounds are sounds that can be produced only for an instant; for example, /b/, /d/, /g/, /j/, /k/, /p/, /t/. The use of C refers to a consonant letter and a V is a vowel. Therefore a CVC word is a consonant, vowel, consonant word such as *hip*.

Vowel sounds are generally classified by their long or short sound. However American English has 15 vowel phonemes plus at least three r-controlled vowel classifications. A **schwa** (ə) is a vowel sound that

is indistinguishable – it does not have a solid sound identify such as in the schwa sound heard in the ‘a’ in *about* or the ‘e’ in *system* or the *i* in *easily*. These happen most often in unstressed syllables. Another vowel anomaly happens with **the r-controlled vowels**. The vowel becomes totally combined with the letter *r* when preceded by a short vowel; for example, *bird*, *fur*, *her*. This also happens with some *long vowel sounds that precede the r*; for example, *hair*, *hear*, *hire*. The influence of the *r* takes control of the vowel. In a few cases, the vowel and *r* can also be slightly separated from the *r* as in *far* and *for*.

Diphthongs are a blend of vowel sounds in one syllable such as *oi* in *boil* and *ow* in *now* and *ou* in *cloud*. Consonant and vowel **digraphs** are two letters which make one sound. For example, ‘*sh*’ in *shell* and ‘*ie*’ in *pie*. As students learn words with more than one syllable, these syllable parts can be classified by two categories: open and closed. An **open syllable** ends with a long vowel sound and is spelled with one vowel letter: CV, CCV (me, she, robot). A **closed syllable** ends in one or more consonants and has a short vowel sound spelled with one vowel letter: VC, CVC, CCVC, CVCC (fish, men, rabbit). (Honig, Diamond, & Gutlohn, 2018).

Alphabetic Principle

According to the University of Oregon, the alphabetic principle is composed of two parts.

Alphabetic Understanding: Words are composed of letters that represent sounds.

Phonological Recoding: Using systematic relationships between letters and phonemes to retrieve the pronunciation of an unknown printed string of letters or to spell words. Phonological recoding consists of the following categories: regular word reading (decoding), irregular word reading, and advanced word analysis (common vowel/consonant spelling patterns and affixes). When teaching advanced word analysis, words are identified through meaningful units (morphemes) such as prefixes, suffixes, and root words. The smallest meaningful part of a word is a morpheme. For example, the word *unhappy* has two morphemes, *un* which means ‘not’ and *happy* which means ‘joyful’. This overlaps with and is usually considered to be a part of vocabulary instruction.

Teaching Phonics

There are several approaches to phonics instruction. Research supports the need for explicit, systematic phonics instruction. Systematic phonics instruction is the direct teaching of a set of letter-sound relationships in a clearly defined sequence. The instructional set includes the major sound/spelling relationships of both consonants and vowels. The program also provides materials that give children substantial practice in applying knowledge of these relationships as they read and write. These materials include books or stories that contain many words that children can decode by using the letter-sound relationships they have learned and are learning. These programs might also provide children with opportunities to spell words and to write their own stories with the letter-sound relationships they are learning.

Explicit phonics instruction is an instructional practice where the teacher makes it a regular practice to model skills and strategies that students need to use to decipher and decode new and unknown words. The teacher explains the reason(s) and importance of learning the new phonics skill or strategy. The teacher also guides the students in their acquisition of the phonics skill or strategy. Phonics assessment for beginning readers should focus upon understanding the alphabetic principle and intervention for struggling beginning readers should occur as soon as a reading problem is identified through screening

and diagnostic assessment(s). Initial assessment should include letter/sound/spelling correspondences and move gradually to decoding. Decoding assessment is usually accomplished through the use of non-sense word reading in order to eliminate words which can be recognized from rote memory. The purpose of phonics assessment for older readers is to inform instructional practices which determine interventions and guide instruction for readers in need of word attack skills or decoding instruction.

Fluency

Fluency is the ability to read a *text with accuracy, at appropriate rate(s), and with expression*. **Accuracy** is identifying words correctly. **Rate** is *the speed* at which the reader reads out loud and is measured by a *words correct per minute (WCPM)* count. This practice of *reading accurately with speedy word recognition* is known as **automaticity**. Although the terms automaticity and fluency are often used interchangeably, they are not the same thing. Automaticity is the fast, effortless word recognition that comes with a great deal of reading practice. Automaticity refers only to accurate, speedy word recognition, not to reading with expression. Therefore, automaticity is necessary, but not enough, for fluent reading. When a fluent reader engages in meaningful text, comprehension is more likely to occur. This happens because the fluent reader recognizes many words instantaneously, decodes words with speed and accuracy, and has a deep understanding of the alphabetic principle which frees the brain to attend to text comprehension.

Fluent readers group words together to help them gain meaning from what they read. In other words, they divide the text into meaningful chunks. Fluent readers read aloud effortlessly and with **expression**. Reading with expression is known as **prosody**. To read with expression, readers must be able to divide the text *into meaningful chunks*. The fluent reader reads with expression that aligns with the message of the text, *provides emphasis and inflection*, and *attends to punctuation*. Attention is paid to pausing at commas, periods, and other punctuation and appropriate pausing is evident. The reading of a fluent reader sounds natural. Readers who have not developed fluency read slowly, word by word. Their oral reading is choppy and plodding. The disfluent reader decodes words slowly and with considerable effort.

Fluency is important because it provides a bridge between word recognition and comprehension. Because fluent readers do not have to concentrate on decoding the words, they can focus their attention on what the text means. They can make connections among the ideas in the text and between the text and their background knowledge. In other words, fluent readers recognize words and comprehend at the same time. Less fluent readers, however, must focus their attention on figuring out the words, leaving them little attention for understanding the text. Struggling readers will exhibit slower fluency rates when they are reading unfamiliar materials with which they lack background knowledge and when reading texts that are above their instructional and independent reading levels. Independent reading levels are when the student knows and recognizes with automaticity 95-100% of the words in the passage or text. Instructional reading levels are materials at which the student accurately recognizes 90% of the words with automaticity.

Research on fluency instructional practices have been extensive over the past 15-20 years. Students who read and reread passages orally with guidance and/or feedback become better readers. Repeated oral reading substantially improves word recognition, speed, and accuracy, as well as fluency. Repeated oral reading improves the reading ability of all students throughout the elementary school years, and

influences comprehension. However, a fluent reader does not miraculously acquire comprehension skills and strategies through reading aloud alone. The use of writing and oral language enhance, support, and influence fluency development. Traditional round robin reading where students take turns reading only small amounts of text is proven to be ineffective. Also extended periods of silent sustained reading is not effective instructional practice for fluency development. Sustained silent reading is not an effective instructional strategy. Fluency impacts reader endurance and comprehension through the elements of accuracy, rate, and expression. Metacognition and fluency combine to provide a self-regulatory activity relating to comprehension. A fluent reader who is self-monitoring his/her reading is using self-regulation strategies to adjust his/her reading rate to meet the varying demands of diverse types of text; for example, when a reader chooses to read at a slower rate when interacting with informational text on an unfamiliar topic then chooses to read more quickly when reading a novel for pleasure.

Fluency assessment is used for on-going progress monitoring and screening for all students in grades 1-5 and for struggling readers as needed. At the beginning of the year the fluency assessment is used as a screening tool for determining which students are fluent and which are non-fluent. Students' words correct per minute (WCPR) are compared to the ORF (Oral Reading Fluency) Norms chart developed by Tindall. WCPM to determine fluency increase as the school year progresses. If a student is receiving differentiated instruction in fluency for remediation, their progress should be monitored biweekly (every two weeks). If the student does not progress and has received quality instruction at repeated, frequent times, then a diagnostic assessment that looks at decoding, phonics, and/or phonemic awareness in order to determine the underlying cause for the disfluent reading. Once the underlying cause is identified, then differentiated and remedial instruction should take place. Prosody is assessed through the use of a rubric such as the one on page 787 of the Teaching Reading Sourcebook.

Vocabulary

Vocabulary refers to the words we must know to communicate effectively. Oral vocabulary refers to words that we use in speaking or recognize in listening. Reading vocabulary refers to words we recognize or use in print. Vocabulary plays an important role in learning to read as well as the words we use to communicate verbally. As beginning readers, children use the words they have heard to make sense of the words they see in print. Beginning readers have a much more difficult time reading words that are not already part of their oral vocabulary. Vocabulary is also very important to reading comprehension. Readers cannot understand what they are reading without knowing what most of the words mean. As children learn to read more advanced texts, they must learn the meaning of new words that are not part of their oral vocabulary.

Children learn the meanings of most words indirectly, through everyday experiences with oral and written language. Children learn vocabulary indirectly when they hear and see words using in many different contexts. Children learn word meanings indirectly or implicitly in three ways: 1) Engaging daily in oral language through conversations with other people, especially adults. 2) Listening to adults read aloud: especially when the reader pauses to define/explain unfamiliar word(s) and discusses the words in context. 3) Reading extensively on their own.

Although a great deal of vocabulary is learned indirectly, some vocabulary should be taught directly. Direct (explicit) instruction helps students learn difficult words, such as words that represent complex concepts that are not part of the students' everyday experiences. Direct instruction includes: providing students with specific word instruction and teaching students word-learning strategies. Teaching specific

words before reading helps both vocabulary learning and reading comprehension. Extended instruction that promotes active engagement with vocabulary improves word learning. The more students work with the new, specific words, the students are more highly engaged and master the words more readily. Repeated exposures to vocabulary in many academic contexts aids word learning. The more students see, hear, and work with specific words, the more likely they are to learn, use, and understand the words. Oral language and writing both support and enhance vocabulary development.

Word learning strategies enable students to have skills that provide a basis for determining the meaning of unknown words, but not directly taught. Effective word learning strategies are: how to use dictionaries and other reference aids to learn word meanings and deepen the knowledge of word meanings; how to use information about word parts to figure out the meanings of words in a text; and how to use context clues to determine word meanings. For example, using word parts such as common prefixes and suffixes (affixes) help students apply the meaning of the affix to a root or base word. There are two kinds of suffixes: inflectional and derivational. Inflectional suffixes (e.g., -s, -es, -ed, -ing) change the form of the word, but not its part of speech. Derivational suffixes (e.g., -ful, -less, -ly) alter the meaning of the root word. Latin and Greek word parts are commonly found in content-area subjects, especially in science, math, and social studies. A list of common Greek and Latin roots are found on page 494 of the Teaching Reading Sourcebook. Teachers should teach word roots as they occur in texts the students are reading and focus upon the roots the students will see often. Words that have multiple meanings across academic content, such as product for math and social studies, and are important to comprehend a concept should be explicitly taught. The goal of vocabulary instruction is to increase students' word knowledge and word applications. Therefore, the goal of quality receptive and expressive vocabulary instruction will develop students' vocabulary by applying word knowledge in meaningful oral and written contexts through multiple exposures or word encounters.

The school climate uses specific types of vocabulary. First, there is social vocabulary. Social vocabulary are the words and phrases that are common to a social setting that includes friends and relatives. Social English consists of phrases, slang, text, emails, and casual language. When defining vocabulary, there are three tiers. **Tier 1 words are common words** which are easily recognized and do not usually receive direct instruction; for example, book, car, run, and help. Academic language is the language used in textbooks, essays, assignments, class presentations, and assessments. Academic language is used at all grade levels, although its frequency increases as students get older. Complex words and phrases that characterize the language of school and are critical for comprehension and academic success. Academic language refers to the key **words and phrases used to connect the subject matter vocabulary and are used across content/subject areas as Tier 2 terms**. Tier two academic terms include transitional phrases, such as '*even though*', '*as a result*', or '*based on the data*' but are also words like '*product*', '*determine*', and '*experiment*'. **Tier 3 Words are content-area focused vocabulary terms and are domain-specific** or content area. Words that are specific to the subject area concept and content area might be *precipitation*, *transpiration*, *evaporation*, etc. when describing the water cycle. Instructional practices that facilitate academic vocabulary instruction include the elements of syntax, semantics, pragmatics, text structures, and vocabulary and should be taught using explicit instruction and guided practice which is followed by student practice and application. Explicit instruction is a part of the gradual release of responsibility model in which the responsibility for learning begins with direct instruction by the teacher and is gradually released to the student who takes on the responsibility for implementing or using the instructional skills, strategies, and processes. Honig, Diamond, & Gutlohn, 2018).

Simple, authentic vocabulary assessment formats are useful in determining students' learning needs. Teachers should assess vocabulary instruction throughout the year immediately after the skill/strategy is taught. The use of informal teacher-made tests and resources within adopted textbook series can help to assess vocabulary in context and morphemic analysis and to apply knowledge and understanding of vocabulary concepts. In addition the multiple-choice format of most standardized tests can be used effectively as a formal assessment to obtain a global or overall measure of vocabulary proficiency and provide a baseline of students' vocabulary skills. Diagnostic texts such as the Peabody Picture Vocabulary Test and the Stanford Diagnostic Reading Test can provide teachers with areas of weakness and strength for students who are struggling with reading and identify particular areas to target with differentiated instruction.

Comprehension

Comprehension is the reason for reading. Comprehension is the process of simultaneously extracting information and constructing meaning by intentionally interacting with written language. If readers can read the words but do not understand what they are reading, they are not really reading. A student can 'word call' or say each word correctly (or read at the surface level of text) but he/she does not understand the author's intended message or shared information, then he/she is struggling with reading comprehension. As they read, good readers are both purposeful and active. Purposeful readers have a specific purpose for reading. Active readers think actively to make sense of that they read. Active reading is complicated. The integration of the student's experiences and world knowledge, vocabulary knowledge and language structure, and reading strategies combines to make sense and get the most meaning from the text. Good readers know when they have problems with their comprehension and know how to resolve their problems as they occur. They adjust their reading rate (a part of fluency) to compensate for closer reading of complex text which contain unfamiliar vocabulary and topics.

Text comprehension can be improved and developed by instruction that helps readers use specific comprehension strategies. Comprehension strategies are conscious plans or steps readers use to make sense of text. Comprehension instruction helps students become purposeful, active readers who are in control of their own reading comprehension. Metacognition is the "thinking about thinking" that 'good readers' use to think about and control their reading. Before reading, a 'good reader' might clarify their purpose for reading and preview the text. During reading, they might monitor their understanding, adjust their reading speed, or rate, to fit the text difficulty, and "fix" any comprehension problems or misunderstandings. After reading, they check their understanding of their reading. Comprehension monitoring is a critical part of metacognition. The 'good reader' is a highly engaged and motivated reader who gains conceptual understanding from the text, interacts with other students to learn, and possesses and uses a variety of cognitive comprehension strategies for learning from a wide variety of texts. 'Good readers' have good reading habits: they check and adapt predictions, connect to world knowledge to make reasonable predictions, monitor and repair comprehension, and reread selectively.

Effective instruction helps readers use comprehension strategies flexibly and in combination. Although it can be helpful to provide students with instruction in individual comprehension strategies, good readers must be able to coordinate and adjust several strategies to assist comprehension. Multiple strategy instruction teaches students how to use strategies flexible as they are needed to assist their comprehension. For example, in a multiple strategy instruction called "reciprocal teaching," the teacher and students work together so the students are learning four comprehension strategies:

- Asking questions about the text they are reading;
- Summarizing parts of the text;
- Clarifying words and sentences they don't understand;
- Predicting what might occur next in the text.

Text comprehension strategies can be taught through explicit instruction, cooperative learning, and by helping readers use strategies flexibly and in combination. Explicit (or direct) instruction is an instructional practice where the teacher makes it a regular practice to model skills and strategies that students need to use to find information quickly, mentally organize new information, and understand how the author presents information in the order of importance (modeling). The teacher explains the reason(s) and importance of learning the new comprehension skill or strategy (direct explanation). The teacher also guides the students in their acquisition of the comprehension skill or strategy (guided practice). Effective strategy instruction includes cooperative learning opportunities for students to work together as partners, in small groups, and on defined academic tasks. The teacher monitors groups/pairs for understanding, misconceptions, and opportunities for feedback. The students learn to apply the strategy to their reading and can apply it independently (application) (Vacca & Vacca, 2012).

Three major elements impact comprehension of informational text usually encountered in content-area subjects: the reader, the text, and the activity. The reader's background knowledge, personal interests and motivation, decoding abilities, academic vocabulary, and life experiences all play a part in how well the reader interacts with a text. The text affects the reader because of the text genre, the text complexity, text coherence, text structures, and text readability. A variety of unfamiliar genres may confront the reader: digital sources, encyclopedias, biographies, brochures, how-to manuals, historical texts, scientific and technical texts, etc. The activity refers to the instructional applications, strategies, and assignments that are connected to the reading assignment (see Cognitive Complexity). Challenges that readers face when reading informational text include: domain-specific vocabulary, complex expository text structures, text features such as graphs and diagrams to explain concepts, abstract unfamiliar concepts, text readability, and use of academic language (Honig, Diamond, & Gutlohn, 2018).

Cognitive Complexity: Webb's Depth of Knowledge (DOK) is one way to think about the cognitive demand, or depth of complexity of thought, which must occur for a student to successfully answer a question, perform a task, or generate a product. Webb (1997) based his schema on the assumption that all curricular units, lessons, and tasks can be categorized by cognitive complexity, or depth of knowledge. **Level 1 in Webb's DOK** is the ***Recall and Reproduction*** level where students recall facts, terms, a concept, and/or perform a simple process/routine. The verbs: locate, define, identify, list, label, match, recall, tell, or answer who, what, when, where, why, or how questions. For example, a student identifies the literary elements of a story. **Level 2 in Webb's DOK** is the ***Skills and Concepts*** level where students transform or process target knowledge before responding. This requires decision-making about how to approach a question or problem. Verbs: infer, categorize, organize, compare-contrast, modify predict, interpret, distinguish, use context clues, and summarize. For example, the student uses context clues to assign meaning to words and phrases. **Level 3 in Webb's DOK** is the ***Strategic Thinking and Reasoning*** level in which students use planning, reasoning, and higher-order thinking processes. Frequently students provide supporting evidence to support their reasoning, especially when there are two or more possible answers. Verbs: critique, revise, assess, cite evidence, develop a logical argument, use concepts to solve non-routine problems, and draw conclusions. For example, a student connects

ideas using supporting evidence from a text or source. **Level 4 in Webb's DOK** is the *Extended Thinking* level. This level involves more in-depth investigations in which real world problems are solved with unpredictable solutions. These activities are interdisciplinary and multiple resources which generally take more time. Verbs: design, collaborate, research, synthesize, critique, produce, and present. For example, a student is involved in gathering, analyzing, and interpreting information from multiple sources. (Honig, Diamond, Gutlohn, 2018).

Informal Reading Assessment

On-going reading assessments must be a part of an effective reading program. Informal measures of reading such as reading inventories, miscue analyses, and running records yield useful information about student performance that can be used to inform and guide instruction. An informal assessment does not compare the performance of a test group or individual to a normative population. Rather, informal assessments are given throughout the school year to individuals or groups for specific instructional purposes. One of the best uses of informal assessments is to evaluate how students interact with print in oral and silent reading situations. Results of informal reading assessments help the teacher identify and target reading areas in which students need additional support, re-teaching, or have gaps or misconceptions.

The informal reading inventory (IRI) is an individually administered reading test. It usually consists of a series of graded word lists, graded reading passages, and comprehension questions. The passages are used to assess how students interact with print orally and silently. An analysis of reading miscues helps to determine the cueing systems that students rely upon or have deficits. Then the student can be paired with appropriate intervention materials and at instructional levels that meet the reading proficiency of the individual student. These reading levels can be independent (96%-100% accuracy), instructional (90-96% accuracy), or frustration (below 90% accuracy). Comprehension levels should also be considered: an independent level reader should have 91% or greater accuracy when responding to comprehension questions. An instructional level reader's comprehension scores should be between 70-90% accurate, and a frustration level reader would score below 70% on comprehension questions.

Informal reading assessments are available for letter/sound identification, phonics, concepts of print, phonemic awareness, alphabet recognition, and vocabulary. Fluency can be assessed separately or in conjunction with comprehension as with the IRI described above or a running record. A running record, originally developed by Marie Clay (1985), is an assessment system for determining student's oral reading fluency and word identification skills and strategies. With a running record, the teacher calculates the percentage of words the student reads correctly and then analyzes the miscues for instructional purposes. The running record allows the teacher to evaluate the reading level difficulty, group students, monitor the individual progress of students, and observe the difficulties of struggling readers. Separately, fluency can be informally assessed. Many basal reading series have fluency passages and other informal assessment measures and the Florida Department of Education provides assessment materials and instructional activities through the Florida Center for Reading Research. The DIBELS (Dynamic Indicators of Basic Early Literacy Skills) include a series of oral reading skill assessments. These short measures are used to monitor early literacy skills and provide feedback to inform instruction. The various measures include: letter naming fluency, initial segmentation fluency, phoneme segmentation fluency, non-sense word fluency, oral reading fluency, and an optional oral reading retell and word use fluency.

Important Considerations regarding English Language Learners

The teacher must have an understanding of the linguistic and cultural backgrounds of their English Language Learners. Like, all of our students, ELLs come to school from widely varying oral language, home and school experiences, and from cultures that reflect different dialects, cultural norms and expectations, and value systems. Some students have little or no formal instruction in their native language. This is important because ELLs who have reading skills in their native language can transfer these skills to English-language texts. On the other hand, students whose education has been interrupted due to catastrophic events or inaccessibility to schools, bring a different set of learning needs as they may not have basic understandings of how language works when reading, writing, speaking, and listening. As a result of these differences, a best instructional practice in order to assist the EL student with early literacy skill acquisition related to oral language is to use differentiated instruction practices. Understanding the home and educational background and culture and the language of the ELL can help the teacher provide supportive vocabulary connections such as through the use of cognates which are words in both languages with similar meanings and spellings, insights into differences in sentence structures between languages, and phonological and dialectical similarities and differences between languages. Knowing these differences and similarities is beneficial for differentiated instruction as the teacher provides instruction to transfer common language features while explicitly teaching confusing and missing language features (Honig, Diamond, & Gutlohn, 2018).

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