COMPONENTS OF AN EFFECTIVE READING PROGRAM

IDEAs that Work
U.S. Office of Special Education Programs

COMPONENTS OF AN EFFECTIVE READING PROGRAM

Introduction

The *No Child Left Behind* Act (2001) requires that all states strive to close the academic achievement gap. This gap is described as the significant disparity in educational achievement and attainment among groups of students as determined by a standardized measure. Traditionally, children with disabilities have scored among the "low achievers" on these measures.

To bridge this gap, children with disabilities must have the opportunity to develop the skills required for academic success within the general education curriculum. Since reading is the foundational skill for all learning, it is essential that children with disabilities receive targeted and effective instruction that addresses their core weaknesses in reading (Lloyd, 2005).

This brief contains five sections, one for each of the five essential components of reading as identified by the National Reading Panel (see National Institute of Child Health and Human Development [NICHD], 2000): 1) phonemic awareness, 2) phonics, 3) fluency, 4) vocabulary, and 5) comprehension. Each section of the brief is organized by a) definitions for components, (b) key findings of the research, (c) guidelines for assessment, (d) considerations for instructional design, (e) key elements of instructional strategies, and (f) references and links for additional resources.

The primary audiences for this brief are state and local technical assistance providers, administrators and policy makers. Through these audiences the Access Center also hopes to reach teachers, principals, related service providers, parents and families.

The purpose of this brief is threefold:

- To provide our audiences with an overview of each of the five essential components of reading.

- To integrate the five essential components of reading with key elements of effective reading programs:
    1) research based
    2) valid and reliable screening, diagnostic and progress assessments
    3) coherent instructional design
    4) explicit and systematic instruction
    5) professional development that prepares teachers to provide instruction in all five components of effective reading for all ability levels
    6) instructional materials aligned with the instructional design

7) adequate time for students to practice reading
8) instructional accommodations for students with disabilities

- To provide easy access to additional related resources.

For addition information regarding *The National Reading Panel*, please see: http://www.nationalreadingpanel.org

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Alphabetics Overview

Phonemic Awareness and Phonics

Alphabetics is a term used to describe the letter-sound elements of learning to read. There are two components of alphabetics: a) phonemic awareness and b) phonics. Since these components are often confused and equally important to reading instruction, each will be discussed in depth (*Big Ideas in Beginning Reading*, n.d.).

Phonemic Awareness

Phonemic awareness is the ability to hear, identify and manipulate the individual sounds, or phonemes, in spoken words. The terms phonemic and phonological awareness are often used interchangeably although they refer to two distinct areas of reading. Phonemic awareness refers to the awareness of individual phonemes; phonological awareness is a more global term that includes the earlier stages of reading, such as rhyme and syllable awareness (*Big Ideas in Beginning Reading*, n.d.; NICHD, 2000)

Research base for phonemic awareness (Key findings of the National Reading Panel, 2000):

- Phonemic awareness can be taught and learned.
- Phonemic awareness is effective in improving reading with all types of children under a variety of teaching conditions.
- Teaching small groups produces better results than teaching individuals.
- Phonemic awareness instruction helps children learn to spell.
- Phonemic awareness instruction is most effective when children are taught to manipulate phonemes by using the letters of the alphabet.
- Phonemic awareness instruction is most effective when it focuses on only one or two types of phoneme manipulation, rather than several types.
- Teaching sessions of about 30 minutes and a total of no more than 20 hours appear to be the most effective. However, the National Reading Panel recommends tailoring training time to student learning by individual assessment.

  For more information regarding the research base for phonemic awareness, please visit:
  http://www.nationalreadingpanel.org

Assessment for phonemic awareness (Guidelines):

- Select and administer assessment tools that are valid and reliable in the measurement of phonemic awareness.
- Administer assessments one-on-one.
- Select assessments that measure the following:

- Phoneme matching: the ability to identify words that begin with the same sound.
- Phoneme isolation: the ability to isolate a single sound from within a word.
- Phoneme blending: the ability to blend individual sounds into a word.
- Phoneme segmentation: the ability to break a word into individual sounds.
- Phoneme manipulation: the ability to modify, change, or move the individual sounds in a word (*Big Ideas in Beginning Reading*, n.d.).

- Do not assume students know the letters and sounds of the alphabet regardless of grade, age or ability level.
- Monitor students identified as being at risk of reading difficulty once or twice per month to ensure effectiveness of intervention and to allow timely instructional changes.
- Use assessments for screening, diagnosing reading problems and monitoring progress**.**
- Administer alternative assessments, as appropriate, for students with disabilities.

  For more information regarding assessments, please see:
  http://idea.uoregon.edu/assessment/analysis_results/test_se_results.html
  http://reading.uoregon.edu/au/au_assess.php

Instructional design for teaching phonemic awareness (Considerations):

Phonemic awareness doesn't appear to be a discrete state, but rather a sequence of development ranging from simple to complex (Ehri, 1991; Stanovich, 1986). The following sequence of development identified by *Big Ideas in Beginning Reading* (n.d.) should be considered when designing an instructional program to include phonemic awareness:

- Recognition that sentences are made up of words.
- Recognition that words can rhyme.
- Recognition that words can be broken down into syllables.
- Recognition that words can be broken down into onsets and rhymes.
- Recognition that words can begin with the same sound.
- Recognition that words can end with the same sound.
- Recognition that words can have the same medial sound(s).
- Recognition that words can be broken down into individual phonemes.
- Recognition that sounds can be deleted from words to make new words.
- Ability to blend sounds to make words.
- Ability to segment words into constituent sounds.

For additional considerations in instructional design, please visit:
http://reading.uoregon.edu/curricula/models.php

Instructional Strategies (Key Elements):

- Teach systematically and explicitly.
- Focus on just a few types of skills.
- Remember that blending and segmentation are the two most critical skills required for phonemic awareness.
- Teach to small groups rather than individuals or entire classes.
- Add the manipulation of letters to the phonemic awareness tasks.
  (Big Ideas in Beginning Reading, n.d.)

The following are examples of skill activities for phonemic awareness instruction identified by the National Reading Panel (see NICHD, 2000):

- phoneme isolation (e.g., What is the first or last sound in *sat*?);
- phoneme identity (e.g., Which sound is the same in *man*, *mitt*, and *mess*?);
- phoneme categorization (e.g., Which word doesn't belong? fat, fan, tap);
- phoneme blending (e.g., What word results when you blend these separately pronounced individual sounds together to make a word? /p/ /i/ /t/;
- phoneme segmentation (e.g., What are the separate sounds in this word? Show me by tapping or counting each sound as you pronounce the word, or set out a token as you say each sound - ant - /a/ /n/ /t/ - 3 sounds).

For more information regarding effective instructional strategies, please visit:
http://reading.uoregon.edu/pa/pa_teach.php

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Phonics Instruction

Phonics instruction is a way of teaching reading that stresses the acquisition of letter-sound correspondences and their use in reading and spelling. Other terms often used interchangeably with phonics are decoding and phonological recoding. Because the English language is alphabetic, decoding is an essential and primary means of recognizing words. There are simply too many words in the English language to rely on memorization as a primary word identification strategy (NICHD, 2000).

Research Base for Phonics Instruction (Key findings of the National Reading Panel, 2000):

- Meta-analysis of the research indicates that explicit, systematic phonics instruction (letter-sound relationships taught directly in a well-defined sequence) is significantly more effective than nonsystematic or no phonics instruction with children of different ages, abilities and SES backgrounds.
- The research indicates that the ability to read and spell words is enhanced in kindergartners who receive systematic beginning phonics instruction.
- Researchers report that first graders who are taught phonics systematically are better decoders and spellers and show significant improvement in their ability to comprehend text.
- Research with older children who received systematic phonics instruction revealed that while they were better able to decode, spell and read text orally, their comprehension was not significantly improved.
- The research reveals that **systematic synthetic phonics** (linking individual letter or letter combinations with appropriate sounds and blending the sounds to form words) instruction had a positive and significant effect on disabled learners' reading skills. The results of various studies indicated that this population improved substantially in their ability to read words and showed significant, albeit small, gains in their ability to process text.

  For more information regarding the research base for phonics instruction visit: http://www.nationalreadingpanel.org

Assessment of Phonics/Decoding Skills (Guidelines):

- Select and administer assessment tools that are valid and reliable in the measurement of phonics/decoding skills.

  For more information on assessment tools visit: http://reading.uoregon.edu/assessment/index.php

- Do not assume students know the sounds of the letters of the alphabet regardless of age or ability level. Assess to determine skill level.

  For information on the Initial Sounds Fluency (ISF) measure, visit: http://dibels.uoregon.edu/measures/isf.php

- Use a screening assessment to diagnose specific decoding difficulties.

- Administer alternative assessments, as appropriate, for students with disabilities.

Instructional Design for Phonics Instruction (Considerations):

- The primary focus of phonics instruction is to help beginning readers understand how letters are linked to sounds (phonemes) to form letter-sound correspondences and spelling patterns and to help them learn how to apply this knowledge in their reading.
- Phonics instruction is an essential part of a total reading program, but should be integrated with instruction in phonemic awareness, fluency and comprehension.
- The hallmark of a systematic phonics approach is that a sequence of phonics elements is delineated and these elements are taught along a dimension of explicitness depending on the type of phonics method employed. Below is a list of phonics instructional methods identified by *Big Ideas in Beginning Reading* (n.d.):
  - **Systematic phonics:** Letter-sound relationships are taught directly in a clearly defined sequence
  - **Systematic synthetic phonics**: Students are taught directly to link an individual letter or letter combination with its appropriate sound and then blend the sounds to form words.
  - **Analytic phonics**: Students are first taught whole word units followed by systematic instruction linking the specific letters in the word with their respective sounds.
  - **Embedded phonics**: Students are taught phonics skills by embedding phonics instruction in text reading. This is a more implicit approach that relies to some extent on incidental learning. Note that the research base reflects that direct "explicit" instruction has been proven to be more effective than "implicit" instruction.
  - **Phonics through spelling**: Students are taught to segment words into phonemes and to select letters for those phonemes (i.e., teaching students to spell words phonemically).

Instructional Strategies for Phonics Instruction (Key Elements):

- Teach systematically and explicitly starting with sound/symbol relationships (if not mastered).

  For video clip of letter/sound correspondences visit:
  http://reading.uoregon.edu/au/au_skills_lsc_vidk1.php

- Model/demonstrate how to blend letter-sounds to pronounce known words, and how to segment sounds in known words to write letters representing these sounds.
- Teach each step of instruction using consistent and brief wording.
- Separate auditorially and visually similar letters.
- Introduce some continuous sounds early.
- Introduce letters that can be used to build many words.
- Introduce lowercase letters first unless uppercase letters are similar in configuration.
- Teach simple skills before teaching complex skills.
  - Once students can identify the sound of the letter on two successive trials, include the new letter-sound correspondence with six to eight other letter sounds.
  - When students can identify four to six letter-sound correspondences in two seconds each, include these letters in single-syllable, CVC, decodable words.
- Correct errors immediately.
- Teach each skill to mastery before continuing to the next skill.
- Provide ample opportunity for practice. Adequate time for practice will be determined by individual skill level.

  For more information regarding instructional design considerations and instructional strategies visit:

  http://reading.uoregon.edu/au/au_skills_lsc.php

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Vocabulary Overview

Vocabulary development is the understanding of specific words presented in text or oral language. Vocabulary is an important prerequisite for developing reading comprehension and oral and written expression. Students who do not have a strong vocabulary continue to struggle to gain meaning from text while reading, and struggle to understand new concepts presented in oral discussions. Vocabulary is an essential skill for learning to read and write, and vocabulary strategies are necessary when students are “reading to learn.”

Researchers often refer to four types of vocabulary:

- **Receptive Vocabulary**
    1) Listening vocabulary: the words we need to know to understand what we hear or listen to
    2) Reading vocabulary*:* the words we need to know to understand what is presented to us in text
- **Productive or Expressive Vocabulary**
    3) Speaking vocabulary: the words we use in speaking
    4) Writing vocabulary: the words we use when writing

Vocabulary is the ability to understand (receptive) and use (expressive) words to acquire and convey meaning:

> Learning, as a language based activity, is fundamentally and profoundly dependent on vocabulary knowledge. Learners must have access to the meanings of words that teachers, or their surrogates (e.g., other adults, books, films, etc.), use to guide them into contemplating known concepts in novel ways (i.e., to learn something new) (Baker, Simmons, & Kame'enui, 1997).

Research Base for Vocabulary (Key findings):

- Children learn the meanings of most words indirectly They do so by engaging daily in oral language, listening to adults read to them, and reading extensively on their own (Armbruster, Lehr, & Osborne, 2001).
- Although a great deal of vocabulary is learned indirectly, some vocabulary should be taught directly (NICHD, 2000).
- Repetition and multiple exposures to words contribute to students’ understanding of word meaning (NICHD, 2000).
- Even weak readers’ vocabulary knowledge is strongly correlated to the amount of reading they engage in: "Research has shown that children who read even ten minutes a day outside of school experience substantially higher rates of vocabulary growth between second and fifth grade than children who do little or no reading" (Anderson & Nagy, 1992).
- Words are typically learned from repeated encounters (often 8-10 exposures), rather than from a single context or encounter (McKeown, Beck, Omanson, & Pople, 1985).
- Children who enter with limited vocabulary knowledge grow much more discrepant over time from their peers who have rich vocabulary knowledge (Baker et al., 1997).

Assessment of Vocabulary (Guidelines):

According to the research done by the National Reading Panel (see NICHD, 2000):

- There is no single standard for assessing vocabulary. However, they also recommend that more instructional research be done in this area.
- Using more than one measure of vocabulary is critical for sound evaluation, due to the fact that there is more than one type of vocabulary and each type is measured differently.
- Using more than one measure of vocabulary is essential for sound instruction.
- Standardized tests can provide a global measure of vocabulary and may be used to provide a baseline.
- Few researchers have depended on standardized instruments to assess the efficacy of the instruction they studied, thus suggesting that the more closely the assessment matches the instruction, the more appropriate the conclusions about instructional effectiveness will be.
- Accommodations should be administered, as appropriate, for students with disabilities (Quenemoen, Thompson, Thurlow, & Lehr, 2001).

Instructional Design for Teaching Vocabulary (Considerations):

The NRP has been reticent to suggest any one method of learning vocabulary because there are rarely more than a handful of studies on any one method. An analysis of the research suggests that a variety of direct and indirect methods of vocabulary instruction can be effective. Relying on any single method is not advised because findings indicate that different methods may be differentially effective. However, some fairly consistent trends in the research do point toward the following implications for practice:

- Vocabulary instruction should be incorporated into reading instruction (NICHD, 2000).
- Vocabulary items that are required for a specific text should be taught directly—this helps both vocabulary learning and reading comprehension (NICHD, 2000).
- The more connections that can be made to a specific word, the better it is learned (NICHD, 2000).
- Pre-instruction of vocabulary in reading lessons has been shown to have significant effects on learning outcomes (NICHD, 2000).
- Students should be given strategies to use when they encounter new words in oral and written language (NICHD, 2000).
- The context in which words are learned is very important. Vocabulary words should be words that the learner will encounter in many contexts because students learn new words better when they encounter them often (Armbruster et al., 2001).
- A large portion of vocabulary items should be derived from content learning materials (NICHD, 2000).
- Teachers should select vocabulary words that are important for understanding text and words that students will encounter often (NICHD, 2000).
- Teachers should include both context and definitions for words (Stahl, 1986).
- Children learn words best when they are provided with instruction over an extended period of time and when that instruction has them work actively with the words (Armbruster et al., 2001).

Instructional Strategies (Key elements):

- Students learn new vocabulary from oral language experiences like listening to adults read to them. Teachers should read aloud to students, no matter what grade they teach:
    - Reading aloud works best when the teacher discusses the selection before, during and after reading, talking with students about new vocabulary and concepts and helping them to connect the words to their prior knowledge and background.
- Teachers need to help students develop word-learning strategies that they can use with new words that have not been taught directly.
    - These strategies include how to use dictionaries and other reference aids to learn word meanings, how to use information about word parts to figure out the meanings of words in text, and how to use context clues to determine word meanings.
- Teachers should provide many opportunities for students to read in and out of school. The more students read on their own, the more words they will encounter and the more word meanings they will become familiar with.
- Because it is not possible to directly teach students all the words in a text that they are not familiar with, teachers should focus on teaching three types of words.
    - Important words: words that are critical for understanding a concept or the text
    - Useful words: words that students are likely to see and use again and again
    - Difficult words. Direct instruction should be provided for words that are particularly difficult for your students (e.g., words with multiple meanings, idiomatic expressions) (Armbruster et al., 2001).
- Students learn vocabulary more effectively when they are actively and directly involved in constructing meaning rather than in memorizing definitions or synonyms (Baker et al., 1997).
- When implementing direct vocabulary instruction, teachers should be sure that students are aware of what the task is and how to complete it. Students should know why they are doing the task and the components of vocabulary learning, as opposed to solely focusing on the words to be learned (NICHD, 2000).

For more information on teaching vocabulary, please see the following links:

- From the Institute for the Development of Educational Achievement at the University of Oregon:
    - http://reading.uoregon.edu/voc/voc_types.php
    - http://reading.uoregon.edu/voc/voc_sequence.php

For more information on instructional strategies for vocabulary see Beck, McKeown, and Kucan (2002).

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Fluency Overview

Fluency is the ability to read text automatically, accurately, and effortlessly. It is reading words quickly without conscious attention and effort. Fluency is a critical skill that links word recognition and comprehension, and it enables a student to process meaning. Fluency is an important component in a reading program and should not be neglected (Armbruster et al., 2001; NICHD, 2000).

Research Base for Fluency (Key findings):

- Fluency can be taught and learned (Armbruster et al., 2001).
- Through repetition and progress monitoring of oral reading skills, student fluency can increase (Faulkner & Levy, 1999).
- Researchers have found guided reading and rereading of text until a certain level of fluency is reached to be effective (NICHD, 2000).
- Independent silent reading is an effective instructional approach to increase fluency (NICHD, 2000).
- Fluency instruction should be explicit and systematic (Armbruster et al., 2001).
- Practicing oral reading through the use of audiotapes, tutors, and peer guidance is beneficial for increasing fluency (Gilbert, Williams, & McLaughlin, 1996).
- Developing fluency skills increases comprehension skills (Reutzel & Hollingsworth, 1993).
- Reading must become automatic for students because accuracy alone does not lead to strong comprehension skills (Armbruster et al., 2001).

For more information regarding the research base for fluency, visit: http://www.nifl.gov/partnershipforreading/explore/fluency.html.

Assessment of Fluency (Guidelines):

- Select and administer assessment tools that are valid and reliable in the measurement of fluency (Good & Kaminski, 2002).
- Standardized measures can be used to monitor student progress with fluency skills (Good & Kaminski, 2002).
- The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) are an example of a strong fluency assessment (Good & Kaminski, 2002).
- Slow reading predicts poor comprehension (Armbruster et al., 2001).
- Accommodations should be administered, as appropriate, for students with disabilities (Quenemoen et al., 2001).
- Do not assume students are fluent readers regardless of grade, age, or ability level.
- Monitor student progress regularly to ensure student achievement in fluency is progressing (Good & Kaminski, 2002).
- Administer assessments one-on-one (Good & Kaminski, 2002).

To learn more about the DIBELS Oral Reading Fluency measure, visit: http://reading.uoregon.edu/assessment/dibels.php.

For additional information regarding assessments for fluency, visit:
http://www.balancedreading.com/assessment/abecedarian.html.

Instructional Design for Teaching Fluency (Considerations):

Students should develop fluency in three critical areas. These areas include letter-sound fluency, irregular word fluency, and oral reading fluency.

For an example of each, please visit:
http://reading.uoregon.edu/flu/flu_skills.php.

Instruction in these three areas should be explicit and systematic (NICHD, 2000).

Students with strong fluency skills are able to:

- identify letter-sound correspondences automatically and accurately,
- identify familiar spelling patterns quickly, and
- identify isolated words and connected text effortlessly (NICHD, 2000).

Teachers who strive to increase student fluency should:

- select appropriate instructional tasks,
- schedule sufficient time for practice, and
- set student fluency goals (Armbruster et al., 2001).

For additional considerations on the instructional design for teaching fluency, please visit:
http://reading.uoregon.edu/flu/index.php.

Instructional Strategies for Fluency (Key Elements):

- Instruction should be explicit and systematic to increase fluency (Armbruster et al., 2001).
- Give students opportunities to reread passages out loud (Armbruster et al., 2001).
- Provide feedback on student fluency skills (Armbruster et al., 2001).
- Ensure passages are within the learner's decoding range, 95% accuracy or higher, (O'Neill, Harbor, & Parton, 2004).
- Provide daily opportunity for fluency building (Armbruster et al., 2001).
- Allow students to listen to books on tape (Gilbert et al., 1996).
- Identify target reading rates (Armbruster et al., 2001).
- To determine an appropriate text level, have a student read a passage from the text. Calculate the number of words read correctly and divide by the total words read. This will give you the student's accuracy level (Mather, 2001).
    - Higher than 97% accuracy = independent reading level.
    - 94-97% accuracy = instructional level (when working on fluency, materials should be at this level or above).
    - 93% or below = frustration level

For more information regarding instructional strategies for teaching fluency, visit:

http://www.readingrockets.org/article.php?ID=99 and

http://www.ldonline.org/article.php?max=20&id=552&loc=27

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Comprehension Overview

Reading comprehension is a complex cognitive process involving the intentional interaction between reader and text to extract meaning. It is the final goal of reading instruction; “the essence of reading” (Durkin,1978-79). Reading comprehension is essential not only to academic learning in all subject areas but to lifelong learning as well. To be able to construct meaning from text, a child must have (a) general language comprehensions skills and (b) the ability to accurately and fluently identify words in print (Torgeson, 2002).

Research Base for Comprehension (Key findings):

- Comprehension cannot be understood without a clear understanding of the role vocabulary development and vocabulary instruction play in the process (NICHD, 2000).
- Vocabulary instruction leads to gains in comprehension, but methods must be appropriate to the age and ability of the reader (NICHD, 2000).
- A critical problem for most children who experience reading difficulties involves early and continued problems acquiring accurate and fluent word identification skills (Torgeson, 2002).
- Explicit or formal instruction in the application of comprehension strategies has been shown to be highly effective in enhancing understanding (NICHD, 2000).
- Comprehension can be improved by teaching students to use specific cognitive strategies, or to reason strategically when they encounter barriers to understanding what they are reading (NICHD, 2000).
- Text comprehension instruction is most effective when teachers use a combination of reading comprehension techniques (NICHD, 2000).
- When used in combination, comprehension techniques can improve results in standardized comprehension tests (NICHD, 2000).

For more information regarding the reading research base for all essential components of reading, please visit:

http://www.nichd.nih.gov/publications/nrp/findings.htm

Assessment of Comprehension (Guidelines):

Select and administer assessment tools that are valid and reliable.

- Determine students' skill levels in phonemic awareness, phonics, vocabulary and fluency. These are foundational skills essential for reading comprehension.

- Review Individualized Education Plans to: 1) determine what assessment measures have been performed and 2) identify areas of skill deficits that may affect reading comprehension.

- Conduct multiple assessments, if required, to adequately identify skill deficits. Examples of assessment measures that test comprehension skills include Degrees of Reading Power (DRP), the Iowa Test of Basic Skills (ITBS) and the Gray Oral Reading Test IV (Gort-4).

- Administer accommodations, as appropriate, for students with disabilities (Quenemoen et al., 2001).

For more information regarding reading comprehension assessments, please see:

http://www.fcrr.org/assessment/index.htm
http://reading.uoregon.edu/assessment/index.php

Instructional Design for Teaching Comprehension (Considerations):

- The content of meaning is influenced not only by the text, but also by components the reader brings to the process (Anderson & Pearson, 1984). Both domains should be taken into consideration when designing instruction to teach comprehension. Some of the factors to consider include:

Reader Factors	Text Factors
Phonemic awareness	Genre considerations
Alphabetic understanding	Quality of text
Fluency with code	Density and difficulty of concepts
Vocabulary knowledge	Narrative vs. expository
Prior knowledge of content	
Engagement and interest	

(*Big Ideas in Beginning Reading*, n.d.)

- Comprehension is the joint product of language comprehension ability and word identification skills (Torgeson, 2002). For a comprehension program to be effective, it must include the assessment of students' reading skills and remediation in areas of skill deficit.

- Time spent reading is highly correlated with comprehension. Therefore, when designing a program to teach comprehension:

    - Provide opportunities for in-class reading, outside-of-class reading, and independent reading. Reading in the content areas should begin as early as the third grade to circumvent later comprehension weaknesses.

    - Encourage kids to read more and to read widely so they can develop a passion for reading.

For more information related to instructional design for comprehension, please see:

http://reading.uoregon.edu/comp/comp_what.php

Instructional Strategies for Comprehension (Key elements):

- The research base in reading instruction reveals that comprehension instruction is most effective when multiple instructional strategies are used. Some of the comprehension strategies identified by the National Reading Panel (see NICHD, 2000) that have proven to be effective in improving comprehension include:

    - Comprehension monitoring: readers learn how to be aware of their understanding of the material.
    - Cooperative learning: students learn reading strategies together.
    - Use of graphic and semantic organizers (including story maps): readers make graphic representations of the material to assist comprehension.
    - Question answering: readers answer questions posed by the teacher and receive immediate feedback.
    - Question generation: readers ask themselves questions about various aspects of the story.
    - Story structure: students are taught to use the structure of the story as a means of helping them recall story content in order to answer questions about what they have read.
    - Summarization: readers are taught to integrate ideas and generalize from the text information.

For more information regarding instructional strategies for comprehension, please review:

http://reading.uoregon.edu/comp/comp_types.php

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