

Webinar on Wednesday, May 31, 2017

Dyslexia: Evidenced-based Strategies and Interventions

<https://sfnh.webex.com/sfnh/lsr.php?RCID=f32b14e3173f4c90be74a8b8a9a86334>

Transcription

1) Title Slide

Good afternoon and welcome to today's webinar-Dyslexia: Evidenced-based Strategies and Interventions. The third presentation in a series informing New Hampshire about dyslexia and related disorders, evidenced-based methods of screening, and evidenced-based interventions. RSA 200:58-200:62 directs that schools are informed and prepared to implement processes that identify students that may be at risk for dyslexia in their first years of school, kindergarten and first grade.

2) Introduction to the Presenters

Hello again. I'm Beth McClure and look just like I did the last two times. I'm still a teaching principal, I'm a fellow of the academy of Orton-Gillingham practitioners and educators. I have trained in a number of different interventions to students and have used them with success so I am very excited to share this webinar with you. In the past, I have served on the board of the New Hampshire Branch of the International Dyslexia Association. I actually do serve on the board of the Academy of Orton-Gillingham Practitioners and Educators. I've done teacher training in Orton-Gillingham for New Hampshire school districts and I've taught assessment and learning disorders classes at the graduate level. Hi. My name is Colleen Sliva. I am a Principal and Special Education Director, and both a learning disabilities specialist, and a reading and writing specialist, and have a passion for helping individuals with dyslexia. I became aware of dyslexia after marrying my husband of 28 years and in raising my daughter, now 26, both of whom have experienced dyslexia. Their struggles led me to become educated in teaching methods that best help dyslexics learning to read and write effectively. I assisted members in establishing the New Hampshire Branch of the International Dyslexia Association, serving as president for a while, meanwhile teaching many, many students with dyslexia to read and write effectively. Then watching them go onto college becoming your accountants, your doctors, and educators. My daughter and some students were lucky in that they received what has been termed heroic interventions in late elementary and middle school in order to overcome being so far behind. My colleague, Beth, and I knew there had to be a better way for students and vowed to find a way to provide early intervention so that students would experience a normal childhood and avoid the social/emotional impact of falling behind.

3) Evidenced-based Intervention for Dyslexia

Today we will discuss evidenced-based interventions for dyslexia or interventions that are applied during the first few years experiencing school after students are identified after the k-1 screening process. In doing this, we will provide information that will help you understand what comprises evidence-based reading instruction, We will discuss Multi-Tiered Systems of Support for Reading Instruction, we will identify the components of an effective multisensory structured language based reading intervention program, we will provide examples of Evidenced-based Interventions, and we will discuss a method that can be used in evaluating interventions.

During this presentation the Q and A feature is enabled. Please feel free to ask questions as they may come up for you. We will most likely answer these questions at the end of the presentation. Please note that this presentation may slightly exceed the one hour schedule, we'll do our best. Please note that in this presentation, we will not be discussing meet the needs to students who have been found to have dyslexia later in their school experiences such as late elementary school, middle school, or in high school.

4) Evidenced-based Reading Instruction

"In its simplest form, evidence-based reading instruction means that a particular program or collection of instructional practices has a record of success. That is, there is reliable, trustworthy, and valid evidence to suggest that when the program is used with a particular group of children, the children can be expected to make adequate gains in reading achievement. Other terms that are sometimes used to convey the same idea are research-based instruction and scientifically based research." -IRA 2002.

Program is the term used to describe specific often packaged materials used to provide reading instruction. The term practice refers to the way to deliver instruction or to the instructional strategies used. "The findings of studies designed to identify best programs yielded inconclusive results, whereas examinations of best practices have led to highly consistent results when such studies have been rigorously designed and systematically analyzed and compared." -IRA 2002. However, no single study ever establishes a program or practice as effective; moreover, it is the convergence of evidence from a variety of study designs that is ultimately scientifically convincing. When evaluating studies and claims of evidence, educators must not determine whether the study is quantitative or qualitative in nature, but rather if the study meets the standards of scientific research. That is, does it involve "rigorous and systematic empirical inquiry that is data-based" (Bogdan & Biklen, 1992, p. 43).

5) Multi-tiered Systems of Support for Core Reading Instruction

Many students found to be at risk for dyslexia are addressed using the framework of multi-tiered systems of support. As with other models of multi-tiered system of support, we ensure that students are provided sound reading instruction at the Universal level using the guidance provided by the National Reading Panel 2000 and the National Early Literacy Panel (2008). Then increasing support in the form of targeted intervention is provided to students identified as at risk. Those who do not demonstrate the projected response to targeted intervention then receive intensive intervention. All levels of support must apply the core strategies or practices identified by the National Reading Panel Report in 2000 and the National Early Literacy Plan Report in 2008. We will begin with an overview of the critical components of universal, or Tier I, reading instruction understanding that these components must then be woven into any subsequent intervention. Next we will outline evidenced-based targeted intervention at the Tier II level for students identified as at risk for dyslexia.

6) Tier I: Components of Core Reading

The core reading instruction, a school's tier one approach to reading, or the reading instruction happening in classrooms, should include the following components outlined as evidence-based strategies by the National Reading Panel's report of 2000 and the National Early Literacy Panel Report of 2008. Instruction in Alphabets which includes: phonemic awareness and phonics, which is teaching students the letters of the alphabet and the sounds represented by letters or groups of letters. We need to include fluency instruction and comprehension Instruction which is comprised of teaching vocabulary and text comprehension instruction.

7) Phonemic Awareness

Core or universal reading instruction includes the evidence-based practice of instruction in teaching Phonemic Awareness or teaching how sounds are manipulated in language. Results of the meta-analysis showed that teaching children to manipulate the sounds in language helps them learn to read. Across the various conditions of teaching, testing, and participant characteristics, the effect sizes were all significantly greater than chance and ranged from large to small, with the majority in the moderate range. Effects of phonemic awareness training on reading lasted well beyond the end of training. PA instruction produced positive effects on both word reading and pseudoword reading, indicating that it helps children decode novel words as well as remember how to read familiar words. Phonemic awareness training was effective in boosting reading comprehension, although the effect size was smaller than for word reading. This was not surprising. Phonemic awareness instruction could be expected to benefit children's reading comprehension because of its dependence on effective word reading. However, the National Reading Panel had not expected the effect to be as strong, given that the influence is indirect. Other capabilities influence reading comprehension as well, such as children's vocabulary, their world knowledge, and their memory for text. Phonemic awareness instruction helped all types of children improve their reading, including normally developing readers, children at risk for future reading problems, disabled readers, preschoolers, kindergartners, 1st graders, children in 2nd through 6th grades (most of whom were disabled readers), children across various socioeconomic levels, and children learning to read in English as well as in other languages.

-NRP 2000

8) Phonemic Awareness: Sample Practices

We'd like to provide you with some sample practices for each of these core reading instruction components. Some sample phonemic awareness practices include: phoneme isolation, which requires recognizing individual sounds in words, for example, "Tell me the first sound in boy" (/b/); phoneme identity, which requires recognizing the common sound in different words, for example, "Tell me the sound that is the same in sit, sack, supper" (/s/); phoneme categorization, which requires recognizing the word with the odd sound in a sequence of three or four words, for example, "Which word does not belong? Tip, ten, pan" (pan); phoneme blending, which requires listening to a sequence of separately spoken sounds and combining them to form a recognizable word, for example, "What word is /k/ /a/ /ch/ ?" (catch); phoneme segmentation, which requires breaking a word into its sounds by tapping out or counting the sounds, or by pronouncing and positioning a marker for each sound, for example, "How many phonemes in thick?" (3: /th/ /i/ /k/); and phoneme deletion, which requires recognizing that a word remains when a specified phoneme is removed, for example, "What is stick without the /s/?" (tick). This graphic demonstrates a segmentation task wherein students say the word "fan" and then using their fingers to mark the sounds the students separate or segment the sounds in "fan": /f/, /a/, /n/.

9) Systematic Phonics

Core reading instruction must include the evidenced-based practice of instruction in systematic phonics. As you will recall, phonics is teaching the sound-symbol relationships. In the next several slides, we will explain what systematic phonics is and also explain several research studies that showed the efficacy of systematic phonics instruction for students at risk for dyslexia. Then we will describe a research study that demonstrates the efficacy of systematic phonics as compared to phonics by analogy and non-systematic or incidental phonics. Non-systematic phonics is when phonics concepts are touched upon as they arise.

10) Types of Phonics: Two Major Types

There are two major types of phonics, although there are more. If we consider synthetic phonics, that means that we teach the students the letter sounds and then teach them to blend the sounds for reading. So if we teach them /s/ /a/ /t/, and put those letters together and have them blend the sounds together for reading, we have used synthetic phonics. That's the type of phonics we use when we're teaching students how to read. The other major type of phonics is analytic phonics. That is when we teach the sound-letter relationships in previously learned words that they hear. In the case of analytic phonics, we avoid pronouncing sounds in isolation, but we teach the students to figure out which sounds are comprising the word. So, that's the type of phonics we using when we are teaching students.

11) Systematic Phonics Defined & Explained

With systematic phonics; let me just take a moment to explain. Systematic phonics is taught in a planned sequence with the most commonly phonograms occurring first. The pacing allows time for learning and mastery. It's taught to generalization for reading and spelling and includes reviewing and integrating past lessons in order to get to that generalization point. Reading and spelling are reciprocal tasks. So if we are teaching a skill and have a student to read and spell, we are strengthening the neuro-connection in the brain. I was talking with one of my students today as we were working on a generalization task, and I was explaining to her that it was the hardest thing to teach. And, she was quite wise is saying that it was also the hardest thing to learn.

12) Results of Systematic Phonics K-1

Various types of systematic phonics approaches were found to be significantly more effective than non-systematic phonics approaches in promoting substantial growth in reading. Both analytic and synthetic phonics instruction had a positive effect. Efficacy increased with early instruction. Student group size did not change the positive effect. Results of studies that used systematic phonics with classroom-size groups and small-groups were not statistically different. When effect size was considered, tutoring did have a greater effect than both classroom and small group instruction. An important take-away is that systematic phonics instruction has makes a positive difference in the growth that students make, even when it is delivered to an entire class or to a small group. It has positive impact in young students' comprehension and in young students spelling. It is important to recognize that the goals of phonics instruction are to provide children with some key knowledge and skills and to insure that they know how to apply this knowledge in their reading and writing. Phonics teaching is a means to an end. To be able to make use of letter-sound information, children need phonemic awareness. That is, they need to be able to blend sounds together to decode words, and they need to break spoken words into their constituent sounds to write words. Programs that focus too much on the teaching of letter-sounds relations and not enough on putting them to use are unlikely to be very effective. In implementing systematic phonics instruction, educators must keep the end in mind and insure that children understand the purpose of learning letter-sounds and are able to apply their skills in their daily reading and writing activities.

13) Systematic Phonics K-6

Systematic phonics instruction is an important part of instruction from kindergarten through sixth grade. It should be part of a larger curricular plan. Keep in mind that there are obviously very basic levels of phonics that we teach our students, but there are advanced levels with advanced spelling rules, morphological concepts that we can relate back to phonics as well as use for vocabulary teaching. A knowledgeable teacher can adapt what his or her student needs to learn. An important component to help with generalization is guided oral reading with feedback. That feedback piece is crucial to help

students apply their strategies. And, as Colleen mentioned earlier, even good readers become better spellers with systematic phonics.

14) Results of Systematic Phonics: At Risk Students

Let's look at a study of systematic phonics instruction with at risk students. A quasi-experimental study done in 2008 by Fooreman et al. who studied 285 students in 19 Title I schools in an urban district. The students were in first and second grade. At the top of the slide you will see the different controls for each group. One group had systematic phonics instruction that directly taught letter-sound correspondences, one had phonics instruction using an analogy approach with spelling patterns, and one had incidental instruction in connected text. The first group had significantly higher scores than the other two in phonological processing and word reading. Their rate of growth for word reading was significantly faster than the students who received incidental instruction, and the first group, the group that had that systematic phonics had higher mean scores on passage comprehension than both of the other groups. The first group approached the national average on decoding and passage comprehension. Admirable results.

15) Systematic Phonics: Sample Practices

Common phonics activities engage students when they apply phonemic awareness and letter-sound correspondence and build and reading words. A skilled teacher can make instruction engaging when you think systematic phonics. So, I am hoping to dispel the preconception that phonics is not interesting to children. Children can become excited about learning more of the sound-symbol code. It's important to integrate the phonemic awareness when teaching letter sound correspondence. Students are asked to read, write, and demonstrate reading in phonics tasks. So we really do integrate the analytics and comprehension tasks even when doing just typical phonics tasks. By the way, it is also very useful to teach students phonics. Contrary to popular belief, 94-97% of our English language can be decoded using either phonics or word analysis. I'd like to take a moment to show a video that shows a classroom teacher with her kindergarten class using evidenced-based interventions in the areas of phonemic awareness and phonics. Keep in mind that the class includes both students at risk and typically developing readers.

Video

The Alphabetic Principle, Houston, TX

Madeline Eckford starts her Vanguard with her kindergarten class on a game that focus' kids on the initial sounds of words. "Boys and girls, we're still talking about the letter v, and I've brought a friend along to help me today help you learn more about the letter v. So I'm going to call you up and we are going to take a look in this box to see what things we can find that begin with the letter v. Clarissa, can you come up and find an item that begins with the letter v." Miss Eckford encourages lots of participation which helps her see if anyone is falling behind. "What is that; what did you choose?" "A vest." "A vest, and what letter does vest begin with?" "V." "Can you make the sound for me?" "/v/" "Excellent." Ms. Eckford builds upon alphabetic connections that are already made. The hallmark of a good reading program that is moving sound connections in a sensible order.

The students will next apply their phonemic awareness by manipulating speech sounds within a word. The upcoming exercise will also reinforce links between letters and sounds. In this lesson, kids must create new words by choosing letters from old words. "What word did we just create?" "Van." "It's the word van. Very good. Let's try another word. Take away your letters a and n, and we're still gonna have our v there. The next letter makes the /e/ sound, and the last letter /t/. we just created the word

vet.” Miss Eckford watch kids that don’t grasp with exercise, as they are at risk for reading failure. They’ll be given one-on-one help. Even in this advanced kindergarten class, some children will be slow to grasp phonemic awareness. No surprise since phonemic is largely independent from IQ.

For these five year olds, rearranging speech sounds is a real challenge but by the time they reach third grade, phoneme swapping will feel like child’s play. (Students speak in pig Latin.) You can’t speak pig Latin without a high degree of phonemic awareness. (Students speak pig Latin.) You have to isolate the first sound in the word, move it to the end, and substitute it with the sound of /eh/. (Students speak pig Latin.) As these students would say (in pig Latin) no problem.

End video

16) Non-Systematic Phonics Instruction

I’d like to contrast systematic phonics with non-systematic phonics and instruction also known as incidental code instruction. Non-systematic phonics does not provide students with what they need in order to read and spell well. Non-systematic phonics instruction, also known as incidental code instruction, has an unplanned sequence of instruction. Information about sound-symbol relationships are explained or mentioned as words are encountered in text. Practice or review is not required. This practice is not evidence-based. The Fooreman study that I mentioned earlier is just one of the studies in which it has been shown to not be effective for at-risk students.

17) Fluency=Accuracy+Rate+Prosody

Core reading instruction will include the evidenced-based practice of teaching and building fluency. Fluent reading is accurate. Note that accuracy is listed first because without accurate reading students cannot go on to be fluent readers. Effective reading instruction must begin by developing accurate reading through systematic phonics instruction. The practice of developing fluency includes the development of rate, or reading speed, and prosody, or the expressive piece of reading. Instruction focuses on assisting students in developing their ability to use typical speech patterns and appropriate intonation while reading orally. An extensive review of the literature indicates that classroom practices that encourage repeated oral reading with feedback and guidance leads to meaningful improvements for students—for good readers as well as those who are experiencing difficulties. What kinds of practice develop fluency? If fluency were just a word recognition phenomenon, then having students reviewing and rehearsing word lists might make sense. Although there is some benefit to isolated word recognition study of this type, the evidence is that such training is insufficient as it may fail to transfer when the practiced words are presented in a meaningful context (Fleischer, Jenkins, & Pany, 1979). Competent reading requires skills that extend beyond the single-word level to contextual reading, and this skill can best be acquired by practicing reading in which the words are in a meaningful context. This means that oral reading practice of connected text at a student’s reading level is the best method, the evidenced-based practice, of increasing fluent reading. A fun way to do repeated reading is Readers’ Theater. Students can also read text (at their independent level) to younger students. As they practice to prepare for their read aloud, they are doing repeated reading with a purpose.

18) Fluency: Sample Practices

Each one of these strategies has been found to lead to an increase in fluent reading.

- Repeated reading
- Oral reading feedback
- Reading while listening
- Partner or peer reading

Teachers can implement repeated reading in a number of ways with their students. Texts need to be at the student's independent reading level. Some activities include repeated oral reading with feedback, reading to peers, taking turns reading orally perhaps by using the echo reading strategy, reading while listening simultaneously using choral reading, Readers' Theatre, and using fluency cards using fun voices while re-reading. We have provided a link to a YouTube video that shows a teacher and student using these sample practices. We won't be showing it today, but you can watch it on your own for ideas.

19) A Note About Sustained Silent Reading

While many classrooms have heard about and sometimes use sustained silent reading (SSR) as a practice in classrooms, it is important to note that SSR does not demonstrate a positive impact for developing fluency for students with poor fluency. In fact there is little evidence to suggest that this practice benefits these students' fluency overall. SSR has some value for skilled readers for purposes other than fluency, it does not develop accuracy or fluency in at-risk readers.

20) Vocabulary

Core reading instruction will include the evidenced-based practice of vocabulary instruction. Vocabulary, or knowledge of word meanings, plays a key role in reading comprehension. Knowledge of words is multifaceted, ranging from partial recognition of the meaning of a word to deep knowledge and the ability to use the word effectively in speech or writing. Research supports both explicit, systematic teaching of word meanings and indirect methods of instruction such as those involving inferring meanings of words from sentence context or from word parts (e.g., common roots and affixes). Teachers should know how to develop students' vocabulary knowledge through both direct and indirect methods. They also should understand the importance of wide exposure to words, both orally and through reading, in students' vocabulary development. Prior instruction of vocabulary words can facilitate both vocabulary acquisition and comprehension. Repeated exposure to vocabulary items is important for learning gains. The best gains were made in instruction that extended beyond single class periods and involved multiple exposures in authentic contexts beyond the classroom. I might add that for most people, including adults, it takes at least 11 exposures to commit a word to writing.

21) Vocabulary: Sample Practices

The National Reading Panel Report outlines a variety of vocabulary teaching practices or strategies. It was found that students acquire vocabulary knowledge best when a variety of engaging methods is used. These are the strategies outlined in this report:

Explicit Instruction: Students are given definitions or other attributes of words to be learned.

Implicit Instruction: Students find the meaning of words given the words in context. They use context to develop word meaning.

Multimedia Methods: Vocabulary is taught by going beyond text to include other media such as graphic representations, hypertext, or American Sign Language that uses a haptic medium.

Capacity Methods: Practice is emphasized to increase capacity through making reading automatic.

Association Methods: Learners are encouraged to draw connections between what they do know and words they encounter that they do not know.

Note that both implicit and explicit instruction are evidence-based practices when it comes to vocabulary instruction which differs from instruction in phonemic awareness and phonics. And, I'd like to just chime in and say that using context to decode words is not a good strategy. But it is absolutely appropriate to have a student use context to figure out the meaning of a word. So context is a good strategy given the right purpose.

22) Text Comprehension

Core reading instruction is most effective when text comprehension is taught by actively involving students in multiple comprehension strategy instruction and strategy use in context over time. No one comprehension instructional strategy in and of itself has been shown to improve students understanding of text. Cumulative instruction in comprehension strategies leads to students implementing these taught strategies. In order to develop habits in implementing reading comprehension strategies students must use them actively. The strategies must be taught with ample opportunity for guided practice and then independent practice.

23) Text Comprehension: Sample Strategies

Text comprehension strategy instruction was explored by David Pearson and his colleagues, While there is debate about the relative importance of different strategies (or even if some should be deleted from or added to the list), most researchers and practitioners agree about a core set of strategies:

Activating background knowledge to make connections between new and known information-students connect text to their own experiences, to their world knowledge, and to the text.

Questioning the text-students ask questions while they are reading.

Drawing inferences-readers use their prior knowledge and information from the text to make predictions about what they might read next.

Determining importance-students are taught to find the most important information in the text.

Creating mental images-students are taught to develop detailed visual images as they read.

Repairing understanding when meaning breaks down-readers are taught to stop and use repair strategies as they read when it doesn't make sense often by re-reading.

Synthesizing information-students use multiple strategies to glean information from text.

24) Test Comprehension: Sample Practices

This slide contains sample evidenced-based comprehension practices that need to be included in universal reading instruction. Comprehension strategies are conscious plans — sets of steps that good readers use to make sense of text. Comprehension strategy instruction helps students become purposeful, active readers who are in control of their own reading comprehension. These strategies have evidence for improving text comprehension.

1. Comprehension monitoring is a strategy in which the reader learns how to be aware or conscious of his or her understanding during reading and learns procedures to deal with problems in understanding as they arise.
2. Cooperative learning is a practice wherein readers work together to learn strategies in the context of reading.
3. Metacognition can be defined as "thinking about thinking." Good readers use metacognitive strategies to think about and have control over their reading. Before reading, they might clarify their purpose for reading and preview the text. During reading, they might monitor their understanding, adjusting their reading speed to fit the difficulty of the text and "fixing" any comprehension problems they have. After reading, they check their understanding of what they read. Good readers notice when they begin to have difficulty reading. They stop reading and use repair strategies such as looking back or forward in text, pausing and re-stating meaning, and other strategies on this list to continuously make meaning from text.
4. The use of graphic and semantic organizers allow the reader to represent graphically (write or draw) the meanings and relationships of the ideas that underlie the words in the text.
5. Teaching about text structure (nonfiction and fiction) is an evidenced-based practice. For example when reading a story, the reader learns to ask and answer who, what, where, when, and why questions about the plot and, in some cases, students are taught to map out a story timeline, characters, and events.

6. Question answering is an approach in which the reader answers questions posed by the teacher and is given feedback on the correctness.

7. Question generation is a strategy in which the reader asks himself or herself questions and answer these questions while reading.

8. Summarization is a practice in which the reader attempts to identify and write the main or most important ideas given text.

The most proficient reader uses many different strategies while reading. The strategies are perfected when the reader uses these strategies in context.

So, before I go to the next slide, I want you to take a moment to see how many of the Big 5 of Reading you can remember, and one of them we just finished talking about. So take moment, take out a pencil or pen, and jot down as many as you can. I'll give you about 1 minute. Ok. I am changing the slide so you can check your answers.

25) Name the "Big 5" for Reading

I am sure many of you are very interested in teaching reading and knowledgeable, and I do not want to assume that you have them totally memorized. There have actually been several research studies, multiple research studies indicating that university professors cannot name of five of these off the top of their head. So, you're ahead of the game if you know these.

26) Choosing Interventions for MTSS

Okay. Let's talk about choosing interventions for MTSS (multi-tiered systems of support). All tiers need to incorporate all aspects of the Big 5 for reading. We know that phonemic awareness is a crucial skill for all those learning to read and that there is a greater emphasis at the kindergarten and first grade levels. Systematic phonics instruction, which we've discussed previously, is a key component because very often for students at risk, if they can decode, they can comprehend. Teaching students to read fluently supports comprehension because that way students can pre-up their reading to accurately comprehend what they are reading. Vocabulary instruction has been identified as an important contributor to comprehension. Text comprehension is, after all, the purpose for learning how to read and needs to be a part of our instruction. Let's never forget that. The supplemental instruction provided for students at risk for dyslexia should be aligned with the scope and sequence used in the classroom. An interesting study done in 2010 by Wonder-McDowell with 133 second grade students from 11 elementary schools. You'll hear some interesting results. Students were randomly divided into control and treatment groups. Both groups had supplemental reading instruction for five weeks with a curriculum that included the Big 5 we've just reviewed. One group was taught with a curriculum that was aligned with the classroom instruction and the other was taught with an unaligned curriculum. The group whose instruction was aligned had statistically significantly higher post-test scores on DIBELS Oral Reading Fluency, Woodcock Johnson Reading Mastery Revised Word Comprehension, Word Attack, Passage Comprehension, and Reading Comprehension, and the Total Composite Reading Score. That's a really exciting impact of student reading just by aligning the curriculum.

27) Students at Risk for Dyslexia/Reading Failure

So, let's think about what students at risk for dyslexia or reading failure may need. They need teachers who can provide effective classroom instruction and Tier II instruction in the Big 5. They need teachers who are knowledgeable and trained in the structure of the English language. You can't assume that we as teachers have been trained in the structure of the English language. When I graduated with my Master's degree in learning disabilities, it was only because I took extra professional development that I understood it. They also need teachers who have been trained in effective teaching practices for phonics instruction and had a practicum.

28) Students identified as at risk for dyslexia need more than a Tier I or Core Reading Program

Students identified as at risk for dyslexia need more than a Tier I or a Core Reading Program provides. They along with all other students need a core reading program that includes all the evidenced-based components outlined by the NRP 2000. These identified students also need to have the Tier 1 intervention with their peers, but they also need additional targeted intervention.

29) Tier II for Students with Risk Factors for Dyslexia

Students at risk for Dyslexia need Tier II or targeted intervention. The most difficult problem for students with dyslexia is learning to read. Unfortunately, popularly employed reading approaches Are not effective for struggling readers. These approaches are especially ineffective for students with dyslexia because they do not focus on the decoding skills these students need to succeed in reading. What does work is Multi-Sensory Structured Language Based teaching, which prepares students to decode words in an explicit and systematic manner. This approach not only helps students with dyslexia, but there is substantial evidence that it is more effective for all readers. The delivery and frequency of instruction is tailored for the groups or an individual identified as at-risk, but is recommended to be at least 2-3 times per week, although many schools plan on 5 times per week. Tier II interventions are most effective when the scope and sequence of instruction is aligned with the core reading instruction. These interventions are most effective when teachers implementing the instruction have received proper training including practicum with coaching and feedback to ensure fidelity. Now let's take some time to run through the components of effective multisensory structured language-based teaching.

30) Identify the Components of Effective Multisensory Structured Language-based Teaching

Instruction in the structure of language includes teaching students:

Phonology-the study of sound structure of spoken words. Students are provided instruction in phonological awareness: rhyming, counting words in spoken sentence, and clapping syllables in spoken words, and phonemic awareness or the ability to segment words into their component sounds, which are called phonemes. A phoneme is the smallest unit of sound in a given language that can be recognized as being distinct from other sounds in the language.

Sound-Symbol Association-sound-symbol association is taught and mastered in two directions: from symbol to sound (visual to auditory) for reading, and from sound to symbol (auditory to visual) for spelling.

Syllable Instruction- syllable is a unit of oral or written language with one vowel sound. Instruction includes teaching of the six basic syllable types in the English language: closed, vowel-consonant-e, open, consonant-le, r-controlled, and vowel pair. By knowing the syllable type, the reader can better determine the sound of the vowel in the syllable.

Morphology- morpheme is the smallest unit of meaning in the language. This includes the study of base words, roots, prefixes, and suffixes.

Syntax-syntax is the set of principles that dictate the sequence and function of words in a sentence in order to convey meaning.

Semantics-semantics is that aspect of language concerned with meaning.

Each of these components is taught in the evidence-based multi-sensory structured language approach.

31) Instruction in the Structure of Language

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32) Simultaneous, Multisensory (VAKT)

Multisensory structured language teaching uses all learning pathways in the brain (visual/auditory, kinesthetic-tactile) simultaneously in order to enhance memory and learning. For example, when shown a flash card of the letter d, the student says the letter name "d", then the keyword "dog", then the sound /d/ while writing a d in the air or while tracing the letter "d" on a bumpy surface. In this example, the visual component occurs when the student sees the letter, auditory component occurs when the student says the letter name and sound, the kinesthetic component occurs when a student moves their hand to make the letter shape, and the tactile component when the students feels the bumpy surface.

33) Systematic and Cumulative

Multisensory Structured Language Based Teaching is systematic and cumulative. Systematic means that the organization of material follows the logical order of the language. The sequence must begin with the easiest and most basic concepts and elements and progress methodically to more difficult concepts and elements. Cumulative means each step is based on concepts previously learned. Concepts taught must be systematically reviewed to strengthen memory. For example the short vowel sounds (the letter a is read as /a/, e as /e/, i as /i/, and so on) are taught before the closed syllable type which is taught before the vowel-consonant-e syllable type. Concepts are taught in order and then build on each other. So, they are taught in order.

34) Explicit or Direct Instruction

Multi-sensory Structured Language Based Teaching requires the deliberate teaching of all concepts with continuous student-teacher interaction. It is not assumed that students will naturally deduce these concepts on their own. To create an active interaction between teacher and student, however, the teacher should use questioning to lead the student to a conclusion. Teachers use questions that clarify and probe a student's reasoning, assumptions, implications and consequences. The inferential learning of any concept cannot be taken for granted. Multisensory language instruction requires the direct teaching of all concepts with continuous student-teacher interaction. For example, the teacher will deliver a lesson demonstrating closed syllable construction and vowel consonant e syllable construction. The teacher will provide plenty of practice opportunities for both reading and spelling words with these syllable types so that feedback and reinforcement can be delivered. The teacher will probe students by asking sounds vowels make in the different syllable types and why. The teacher may ask students to form words of syllable types and then ask question that elicit student response in explaining their

actions. I'd like to give an example from real life of explicit or direct instruction that still actively involves the student. So, it's kind of exciting when a student when a student makes an error, if we can lead our students through a thought process where they need to correct their own error, that is much more memorable to them and meaningful to them. In fact, one of my students was studying Ancient Rome at the time we were having a particular lesson. And, I was leading the student through Socratic question and the student looked at me and said, "Don't use your Socratic questioning with me." Well, I was floored and it was great because the student realized what I was doing and had a sense of humor about it.

35) Diagnostic Teaching

Diagnostic teaching is used. The teacher provides instruction that meets a each student's needs. The instruction is based on careful and continuous assessment, both informally (for example, observation) and formally (for example, with standardized measures). The content presented must be mastered to the degree of automaticity. Automaticity is critical to freeing all the student's attention and cognitive resources for comprehension and expression. For example, during one of her regularly scheduled progress monitoring probes, the teacher discovers that the student shows a pattern of errors wherein a student provides incorrect sounds for the symbols "b" and "d". Although instruction was previously presented about this topic and after careful analysis, the teacher will design opportunity for re-teaching these concepts and going on to targeted practice.

36) Synthetic and Analytic Instruction

Multisensory, structured language practices include both synthetic and analytic instruction. Much like these puzzles that must be solved for both taking apart and putting together, synthetic instruction presents the parts of language and then teaches how the parts work together to form a whole when students blend sounds or syllables to form words. Analytic instruction presents the whole and teaches how this can be broken down into its component parts when students are asked to segment the sounds or syllables in a word for spelling. Reading and spelling have a reciprocal relationship to each other, like two sides of a coin. Practice in reading and spelling with the same skill builds a stronger and faster neural connection to help the student read more fluently. For example, the teacher might use direct instruction to introduce the sound-symbol association for sh /sh/. The teacher shows the student how to blend (decode) words with sh (synthetic instruction) and at the same time shows how to spell (encode) words with the sound /sh/ (analytic instruction).

37) Developing Effective Reading Interventions, Why?

As I discuss developing effective reading interventions, you may hear some familiar ideas from earlier in the presentation. In fact, our goal has been to provide you with the background you need to evaluate what to do in your district. Why do it? Well, it helps all children, those at risk particularly need effective instruction in order to read well, and the RSA requires it. Let's take a quick look at that RSA.

38) Putting Effective Interventions Into Practice, When?

So, putting effective interventions into practice by when? The student's school district shall provide age-appropriate evidenced-based, intervention strategies for any student who is identified with potential risk factors of dyslexia and related disorders beginning no later than January 1, 2018.

39) Interventions: Approach vs. a Program

Let's talk about interventions and I'll talk about a few that are available locally. So, first off I want to talk about what is an approach versus a program. Well, an approach differs from a program in significant ways. Both of them have value and are effective. Although both an approach and a program are related

to delivering instruction, an approach is a way in which to present instruction that is guided by principles of instruction. Orton-Gillingham is considered an approach, but it is not a method or a program. An approach has a flexible structure while maintaining its adherence to core principles. In order to use an approach for an intervention, the teacher locates compatible materials to use. Although, I will say that even programs require teachers to find supplemental materials for sufficient practice. A program has a curriculum, with a sequence determined by the program. A program normally has a teacher's guide and materials with which it is coordinated.

40) Questions to Ask When Choosing an Intervention

Let's look at we can ask ourselves when choosing an intervention. We need to answer yes to all our questions. Or, if we do answer no, then we need to figure out a way to bolster our intervention in some other way. These are some questions for district teams to ask themselves when choosing a reading intervention as it relates to phonics and phonemic awareness instruction. During this presentation we reviewed the big 5 of reading, but now we focus on two of them: phonics and phonemic awareness. That is because the biggest impact on comprehension skills comes from these two components, especially in the early elementary grades K-2 that instruction in phonemic awareness and phonics is huge. It is also the area in which students at risk for dyslexia struggle. Therefore, we need to ask ourselves these questions.

41) Examples of Evidenced-based Interventions

Looking at some examples of evidenced-based interventions, there's really no way to go through everything, so if you look at the upper right of the slide there, we have provided a link to a matrix of multi-sensory structured language programs that is available on the International Dyslexia Association's website and when I send out the PDF of the presentation slides, you will have an active link you can go to and look at more. But we just wanted to go through a few of them today. While it is important to list concrete examples, there is always the concern that this will be interpreted as an endorsement of a particular program. It is not. The fact that we are looking at just these five should not be considered an endorsement by the NHDOE. It is also not a list to which you are limited. So, go ahead and use that link. Look at your own intervention that you are using, and hopefully we would have given you some pertinent questions to ask to help you make educated judgements. Today we will look at 5 evidence-based interventions and ask the questions from our earlier slide about each one of them. We also have provided the link to each of the websites so that you may more easily explore the information on your own. Of the interventions listed above, only Orton-Gillingham is an approach. The others are programs. Programs are valuable tools in the hands of teachers who understand the principles underpinning the Orton-Gillingham approach.

42) Orton-Gillingham Approach

So, looking at that, we have provided a link at the top for the Association of Orton-Gillingham practitioners and we can safely answer yes to all of those questions.

43) Wilson Reading System

This is the Wilson Reading System on a grid.

44) LETRS

We looked at LETRS and it bears some explanation. Even though there are some No's there, I certainly want to encourage you to research this. It is evidenced-based. It supports using systematic phonics. It's not really a program; it's more of a training module. There are activities included that involve phonemic awareness. There is teacher training in New Hampshire. There is not a practicum component though.

The module is considered sufficient by the developers. There is a certification for trainers, a train the trainers certification and materials are available for the teacher to have activities in his or her classroom, but they are not reading materials. So, they are valuable activities. In speaking with them, it is designed for teachers to integrate the practices into their existing curriculum.

45) Lindamood-Bell (LiPS, Seeing Stars)

Lindamood-Bell has two programs that relate to reading decoding, phonemic awareness, and phonics. The Lindamood sequencing, known as LiPS and Seeing Stars with teaching irregular words. So we can say yes to all of these things. If there a certification? There is teacher training available in Massachusetts and there is a practicum component at the centers. While there is not a certification here in New Hampshire that is certainly not meant to disway you from investigating this approach. I personally have used it with tremendous success.

46) Project Read (Phonics, Linguistics)

Project Read has materials and training with phonics and linguistics. I trained in all of the Project Read components and can speak from personal experience that there are a lot of positives. Teacher training is available in New Hampshire by webinar for DVD, and although there is not a practicum component, if you have experienced teachers in any of these programs in your district, I would encourage you to involve them in coaching. So, this is one way that you could overcome a practicum component if you have teachers in your district trained in those particular programs. There are certainly lots of materials available also through Project Read.

47) Evaluating Interventions

In order to evaluate the effectiveness of any intervention ongoing progress monitoring must occur. Using the district's designated tool, identified students' progress should be monitored every 1-2.5 months. The continuous reflective multi-tiered systems of support problem-solving process is used to evaluate interventions and decide the next steps to take. The intervention team continuously asks:
Step 1: What do we want the student(s) to know, understand, and do- What is the problem? (Define)
Step 2: Why is the problem occurring? (Analyze)
Step 3: What are we going to do about it? (Implement)
Step 4: Did it work? Is it working and how to we know? (Evaluate)

48) Summary: Evidenced-based Intervention for Dyslexia

We're coming up around the bend to the end so I want to review what we have covered in today's webinar. We described what comprises evidenced-based reading instruction, specifically, the Big 5. We described multi-tiered systems of support with particular emphasis on the core, Tier I instruction and Tier II, targeted instruction with an emphasis on systematic phonics that students at-risk for dyslexia need to have. We provided research to support its efficacy and we identified the components of an effective multisensory based reading intervention.

49) Questions and Answers

So, alright. We would like to scroll through the questions and answers that people have asked. You can use the Q & A function to ask any additional questions you may have. So we will continue our webinar as we answer your questions and also be so kind to answer the survey at the end. It is very brief. Okay. There is a question about what materials are available for phonemic awareness instructions. I have used Lindamood sequencing quite a bit, and , actually, what I will do is look up some other resources. I'll send that out in an email either tonight or tomorrow to give you some additional resources for phonemic awareness. Are there any other questions besides our main one on phonemic awareness? Okay. I want

to thank you so much for a little bit more than an hour. And, I look forward to meeting some of you perhaps and your colleagues at our in-person events coming up-Monday at Colby-Sawyer, 8:30-11:30 and also 12:30-3:30. Thank you.